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LOCAL PEOPLE'S USES AND PERCEPTIONS OF FOREST RESOURCES: AN ANALYSIS OF A STATE PROPERTY REGIME IN ZIMBABWE

By Frank Munyaradzi Matose

A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfilment of the degree of **Master of Science**

in

Rural Sociology

Department of Rural Economy

EDMONTON, ALBERTA

FALL 1994

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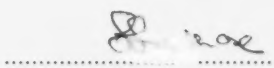

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research for acceptance, a thesis entitled **Local people's uses and perceptions of forest resources: An analysis of a state property regime in Zimbabwe** submitted by **Frank Munyaradzi Matose** in partial fulfillment for the degree of **Master of Science** in **Rural Sociology**.

Dhara S. Gill (supervisor)

Eloise C. Murray

Peter J. Murphy

M. Anne Naeth

DATE August 16, 1994

To Tamsanqa, Munyaradzi, Mandisi and my parents for patiently enduring my absence while I was on study leave.

ABSTRACT

The study was undertaken to explore and describe how displaced people and other communities living adjacent to the Mafungautsi Forest Area (MFA) perceive and use forest resources. The MFA is managed by the Forestry Commission (FC) of Zimbabwe, on behalf of the state. MFA represents one of the largest of such state forest lands and is the site of land and resource use conflicts involving people living in adjacent communal areas. Such conflicts date back to the 1920s when forests were first reserved resulting in the alienation of communities living within and around the forests.

The study is influenced by similar studies of common property, in so far as they relate to state property regimes. Experiences of joint forest management in India are reviewed in contrast with resource sharing proposals for MFA. These resource management strategies are reviewed in relation to community participation. A case study approach was used in combination with a questionnaire survey in collecting data.

The results of the study indicate that the displacement of people from MFA has caused land shortage problems for communities that accommodated them. The same communities overwhelmingly depend on forest resources for their livelihood. Land was ranked as the most important use of the forest, followed by grazing and then by timber. Results from the study also indicate that a unit that is responsible for stopping illegal activities by communities could never stop their depredations on MFA. The community land demands have wider ramifications for the land reform issue for the rest of the country. For forest management, the results point to the need to develop joint management strategies that benefit both the FC and local communities.

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Chapter one

INTRODUCTION

1.1 General introduction

Zimbabwe attained its independence in 1980 after a long struggle against colonial rule. One of the premises upon which the struggle had been waged was the land that had been excised by colonial settlers. Land excision resulted in legal dualism in the country's tenure system. The post-independence government has continued with the basic structure of property regimes that existed before independence (Bruce *et al*, 1993). Approximately 42 per cent of the country's land lies in private ownership by not more than 4,000 people. The remaining 58 per cent is state land: national parks, wildlife and forest lands and communal lands. Over 60 per cent of the Zimbabwe's 10.4 million people live on the communal lands.

There are three types of land tenure in Zimbabwe. These are: state land, communal land and commercial land (Moyo *et al*, 1991). The government has addressed the land inequities of the colonial era by resettling some of the communal land residents on commercial land it purchased. However, the issue of options for uses of state land has not been accorded the same level of importance as commercial land (Katerere *et al*, 1993; Matzke and Mazambani, 1993; Murphree, 1993; Bruce *et al*, 1993). Consequently, state lands continue to be characterised by overlapping property relations in which a multiplicity of actors engage in struggles over property rights (Bruce *et al*, 1993). The overlap manifests itself through competing legal and utilization systems at the national

and local level, respectively. This competition places the same resource at conflicting objectives. Unless action is taken to resolve such conflicts, unsustainable forest use practices may continue around state forests which lead to the destruction of the forests. This problem is not unique to Zimbabwe (Poffenberger, 1990).

1.2 Brief background to the problem

The Forestry Commission (FC) of Zimbabwe is a parastatal organization that was created through the Forest Act of 1948, amended in 1982, by being transferred from the then Forestry Department in the Ministry of Agriculture. Subsequently, it was relocated to the Ministry of Environment and Tourism. The FC has diverse duties it undertakes through two main operational divisions, the commercial and state sections. As a state forest authority, the FC's responsibilties include: State Forests management, conservation of timber resources, afforestation, woodland management, regulation of timber products, the provision of support services in forestry research, education, extension and resource survey and assessment (Katerere *et al*, 1993). The commercial section concentrates on; the development of exotic plantations, management and control of indigenous forests with commercial viability, and timber processing and marketing (Katerere *et al*, 1993).

The creation of the FC was accompanied by the transfer of extensive areas of forest land to its control and management (Bradley and Dewees, 1993). About 12 percent of the 9,414 square kilometres of the land is forest plantations which are located in the Eastern Highlands of the country, while the rest are indigenous forests which are found mostly in the western part of the country. These forests and plantations are surrounded

by communal areas from which local people have encroached for a variety of reasons, including in search for land for cultivation. Part of the reason stems from the history of such lands having been expropriated from communal areas in the 1920s. Conflicts over control and use of forest resources have arisen between the FC and such communities and people which date back to when the forests were reserved. As a result of these conflicts the FC has been prosecuting its neighbours for their depredations on forests, and has evicted squatters from forests and plantations (Bradley and Dewees, 1993). The demand for land and other resources from forests has been growing such that the FC has to seek alternative ways of dealing with such problems other than prosecuting them. At the same time the FC has the mandate of the nation, through the Forest Act, to secure timber resources for the future through management of land set aside for such purposes.

1.3 Problem definition

Forest areas were demarcated by the government as state land. In turn the Forestry Commission controls and manages such land and forests on behalf of the government. In legal and tenurial terms such land is state property. However, the social and political circumstances that prevail in the country, in relation to all privatized land, prevent the FC from exercising its full legal rights. This is partially because of the historical circumstances which prevent the FC from exercising its authority over adjacent communities who contest that authority. The pressure on land and tree resources in neighbouring communal lands also prevents the FC from enforcing evictions and pursuing other policing activities. The nationalization and privatization of forest areas like

Mafungautsi Forest Area has not necessarily led to the envisaged sustainable management of these resources because of the contest by adjacent communities who treat them as *de facto* open access resources. Such circumstances lead to conflicts developing between the state agents like the FC and adjacent resource users. Before any new management initiatives can be embarked upon, there is a need to understand the nature of the conflict in greater detail from all possible perspectives. On the one hand, there are forest managers' objectives and activities while on the other hand, there are the competing claims of neighbouring people that go back as far as the colonial period. To understand the tenurial and resource use conflict the following research questions guided the investigation:

- What is the level of dependency on forest resources from Mafungautsi by a displaced group of people, for their livelihood strategies?

- Why do displaced people continue to depend on forest resources from state forest areas?

- What is the basis of local people's contest of state forests?
  Is it because they contest the legitimacy of state forests or are contests based on historical land claims, resource dependency and the level of deterioration of adjacent communal resources?

- What shapes displaced people's perceptions and use patterns of adjacent forest resources? Are they shaped by their historical connections to state forests, by resource availability from their own property regime and by level of dependency?

- Can there be sustainable management and conservation of state forests without some level of participation by adjacent people or communities? Do local people pose a threat to the resource base within forest areas like Mafungautsi?

1.4 Objectives of the study

The primary purpose of the study was to document the nature of the tenurial conflict between the state and displaced, and other, people living adjacent to Mafungautsi Forest Area in Gokwe Communal Area of Zimbabwe. In order to understand the conflict, local people's perceptions and use patterns were explored and described. The main objectives of the study were:

a) to document the histories of people living adjacent to MFA in relation to when it was gazetted and to analyze whether that history shapes people's contest of the reserved forest's legitimacy;

b) to explore the current relationships between an adjacent community and forest managers and their effect on proposed resource-sharing arrangements;

c) to describe the range of products adjacent people collect from the forest with regard to their relative importance for their livelihood;

d) to document the range of forest products that people collect and their collection patterns with regard to the impact they might have for planned programmes;

e) to examine how people living adjacent to MFA perceive the Forestry Commission and resources within the forest and what impact these perceptions these have on future co-management programmes;

e) to investigate the potential of local institutions for joint forest management initiatives.

1.5 Significance of the study

This study was aimed at understanding the relationship between a state property regime, represented by Mafungautsi Forest Area (MFA) and a neighbouring communal one, with a view to explore this relationship within the broad framework of common

property resources. The primary focus of the study on the contest between *de jure* and *de facto* rights was aimed at making a contribution to the growing body of literature on such problems, but which have been done to only a limited extent in Zimbabwe or the African region. Studies of conflicts between the state and neighbouring communal people have focused mainly on wildlife resources within national parks in Zimbabwe. The study would thus be one of the first to explore the conflict between the state, as represented by the FC, and local people over the use and rights of state forests.[1]

As the FC, on behalf of the state, seeks to find innovative and participatory approaches to the management of forest resources, a study such as this one would assist in the implementation of such new approaches that involve local people. Given the primary focus of the study to explore the conflict, and to document the perceptions of local people, the implementation of the resource sharing project by the FC would gain some new insights about project beneficiaries, that is, local people. Beyond the pilot project, the study sought to develop data for policy-makers within government agencies, like the FC and the Department of National Parks and Wildlife as well as personnel within the relevant ministries, about the impact of state lands on local people's livelihood strategies and aspirations.

Although the period of the study was short, relative to the long history of conflict with and displacement by the FC, it was hoped that the documentation, subsequent analysis and dissemination of local people's use patterns, aspirations and perceptions

[1] Some of the studies that have been conducted to date include:
Matzke and Mazambani, 1993, Forest Extension Services, 1993 and Vermuelen, 1994.

would lead to the improvement of their current situation. That is, the study would lead to the subsequent involvement of local people in the management of resources within Mafungautsi. At the same time, it was hoped that it would not worsen the current relations and benefits that exist to the advantage of local people.

1.6 Limitations of the study

As stated in other sections above, this study was primarily exploratory and descriptive. The purpose of it was not to test any particular theory or specific hypotheses, but to understand the nature of local people's forest resource use and perceptions and how they conflict with those of the managers of the same resources. The concepts and principles are primarily drawn from the field of rural sociology but others are also drawn from forestry and development in general. However, studies of this nature are necessarily multi-disciplinary in nature such that insights from disciplines not mentioned are lacking in the study which might have had different influences on recommendations for management and resulting conclusions. While the study did not test any specific theory, concepts relating to common property were reviewed and used as analytical tools. Likewise, joint forest management experiences were also reviewed for the purpose of comparison with and providing lessons for the Zimbabwean situation.

Given the exploratory nature of the study, advanced analysis of the quantitative data could not be carried out as the data aimed at providing basic evidence about forest use and perceptions for making management decisions. Due to time constraints, the study was conducted in one community where two or three could have provided contrast about

relations around another forest area. However, findings from the one community around one forest still provided evidence that was sufficient for making a contribution towards change of policy and management directions. While the study was aimed at making this contribution, it would not provide direct options for resolving the conflict around forest use nor direct suggestions on how to manage the forest in view of the findings from it. Instead, it offers possible alternatives based on the issues raised in the study.

1.7 Overview

The study is arranged into six chapters followed by references and appendices. In this first chapter, the research problem is introduced, study objectives are defined and limitations discussed. The second chapter provides the background of the study in relation to the historical context in which the problem occurs. The current forest policies are outlined as is the proposed development initiative to solve the problem of the study. The third chapter is a review of concepts and literature that are pertinent to the study. In the fourth chapter, the methodology used in the study is presented. In the fifth chapter the results of the study are presented focusing particularly on the experiences of displaced people, as well as exploring the conflict around forest use and perceptions. In the sixth and final chapter, study findings are discussed in relation to the implications for management of forests and for policy options to pursue. The conclusions from the study are presented and future research directions are suggested in this last chapter.

Chapter two

HISTORICAL BACKGROUND TO THE STUDY

State forests in western Zimbabwe have provided resident and neighbouring communities with land, grazing for livestock, a source of food and a wide range of forest products since they were reserved as early as the 1920's. Such activities were regulated through tenant and lease agreements between the Forestry Commission (FC) and the communities. Initially, local populations were low, and there were no conflicts of interests with forest management activities by the FC. However, since the 1970s, as forest management activities were withdrawn as a result of the escalation of Zimbabwe's liberation war and a subsequent period of unrest due to "dissident activities", populations increased steadily. During the protracted periods of the FC's absence from these forest areas, there were floods of people that moved into the forests and a marked increase in illegal activities by neighbouring communities. When the FC resumed forestry operations around 1987, illegal felling of trees, forest fires, clearance of trees for settlement and cultivation had risen to levels that threatened the existence of state forests. These developments have led to the increase of conflicts between forest managers and such communities around forests. The situation had come to a head in the late 1980s and 1990s, especially given the lack of government solutions to the land reform issue. That is, solving the pressure on communal lands and resources as a result of people being squeezed on marginally productive agricultural land, while the best land was excised into mostly European-owned commercial and state owned land. The FC found itself vulnerable in local communities'

claims to their original lands.

2.1 The setting

Zimbabwe's forest area covers about 23 million hectares or 59% of the country's total land area. 17 million hectares are open savannah woodland which is continuously being cleared for agricultural production. The remaining 5.6 million hectares (or 14.4% of the total land area) consists of protected areas, national parks, reserved forests and industrial plantations of mostly pines and eucalyptus. Plantation forests take up only 115,000 hectares of land while the rest is indigenous forests, mostly in the western half of the country. The spread of the forests in relation to adjacent Communal Lands, where communities reside, is shown in Figure 1. The need to control exploitation of the indigenous hardwood forests of western Zimbabwe was recognized as early as 1909, but it was not until 1925 that management was instituted in the Fuller and Umgusa areas, see Figure 1.

The first forest lands were proclaimed as a result of the Land Apportionment Act of 1929. There were various amendments between 1941 and 1958 which affected the sizes of the reserved forests, but by the 1969 Land Tenure Act there were 847,419 hectares designated as State Forests as well as 60,905 hectares of reserved blocks within Communal Lands (Matose and Clarke, 1993). The objectives of managing these forests were:

a) to produce exploitable timber for the main commercial species on a sustainable basis;

b) to increase productivity through multiple land use practices including

utilisation of minor forest products;

c) to increase the value of protecting the forests through the conservation of soil and water;

d) to develop the amenity value of the forests.

Judge, 1975 in Matose and Clarke, 1993:63.

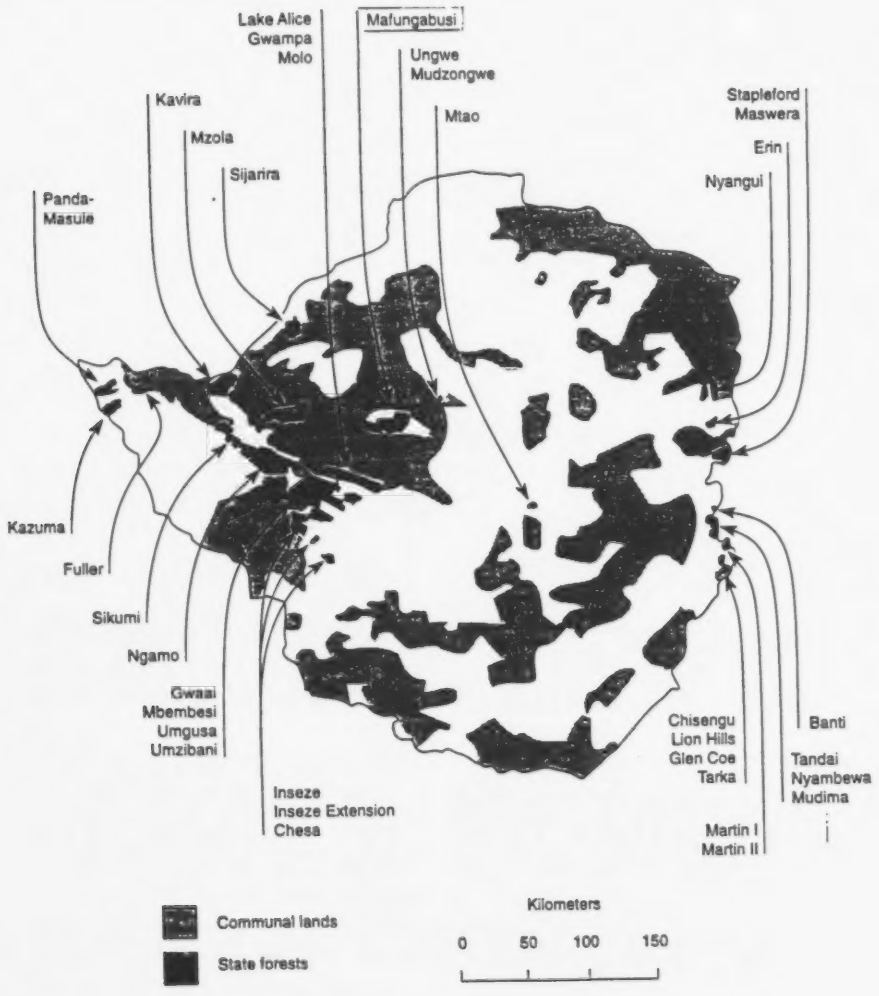
During the early years of forest activities around the reserved forests a multiple-land use strategy had been recognised as pertinent. Although the forests had been reserved primarily for commercial timber and to protect watersheds, other land-use practices such as grazing, bee-keeping, wildlife-conservation, cottage industries and tourism could be developed by the FC on the forest lands (Matose and Clarke, 1993:63). The next section focuses on the FC's historical involvement with communities within forests as it is viewed to have been a recognition of and an attempt to solve the problem that the FC faces today.

2.2 Agricultural and tenancy system

When the forests were gazetted[2], there was already an existing population of communities, who cultivated and lived within the valleys and grazed their livestock, within the forests. These people were not evicted, instead they were given permits, thus making them, 'tenant farmers'.

[2] Gazette in this case means the reservation of resources previously owned by the community. "Gazette" comes from the fact that notice of the reservation would be officially published in a government gazette.

Figure 1. Map of Zimbabwe showing the location of State Forests and plantations in relation to Communal Lands.



Source: Bradley and Dewees (1993).

Over the years the population grew, leading to conflicts developing between them and forests managers. In the late 1960s, the tenant system was 'rationalised' through the employment of an agriculturalist who was to develop a complementary small scale agricultural system on forest land.

These plans were incorporated into the forest management plans of the 1970s (Judge, 1975). There were three main justifications for this agricultural plan. The first was the fact that the Forestry Commission had to intervene in the conflict between the resident communities and the forest managers: "Without any intervention on the part of the Commission, the conflict that was developing between forest managers and tenant/squatter farmers was bound to get worse. There was need to develop sustainable land-utilisation practices capable of benefiting both foresters and farmers" (Matose and Clarke, 1993:63). There was a need to develop sustainable land-use practices that would benefit both parties. The second reason was an economic one. Agriculture would increase the value of the resource since there were considerable areas of land within forest areas which was more suited to farming. These included valley areas, useful for cultivation or dry-season grazing and the forest ridges, which would provide wet-season grazing. The third reason pertained to the people themselves, who would assist with management of the forests through reduction of the need to police and institute fire control measures for forest managers. A resident population's grazing animals would reduce the incidence of fire through removal of grass. Policing would be reduced significantly as a result of the tenants' vested interests in keeping other people from settling on forest land. Since the forest areas could provide timber, wildlife, agricultural

land and grazing, if any one of these components were to be developed in isolation it would give a "low income return in relation to land area" (Judge, 1975). During this period, it was recognized that the greatest economic potential of the forest areas could only be realised if the components were developed in complementarity. The agriculturalist developed detailed settlement plans for each reserved forest, which although they followed commercial agricultural models, also incorporated tenants in the overall management plan for the forests. The objectives were stated as:

> a) to apply management to the tenant community so that it plays its required role in forest area protection and in contributing to the economy of the region;
>
> b) to devise a farming system based on cattle and veld management which complements the forest enterprise, and to allocate land to the required number of African tenants so that the holdings, together with the grazing in the productive forest areas, provide the tenants with the opportunity of making a worthwhile living.
>
> Judge, 1975.

According to the plan, a limited and carefully controlled number of tenant farmers would be given rights to enough arable and grazing land to generate an annual gross income of Z$1,000 (1970 values) per family. Their counterparts in Communal Lands were averaging Z$360 per year. Each family was thus allocated 10 hectares of land and 50 livestock units to attain this income target. Beyond the tenant farmers there was a recognition that the forest areas could provide wet-season grazing for neighbouring communities as the tenant farmers' livestock units could not sufficiently reduce the fire hazard on their own. Tenant farmers were required to pay nominal rent each year and were given leases that lasted for ten years with options to renew (Judge, 1975).

These agricultural plans were never realised mostly for three reasons. The major

reason that triggered the demise of the development of forest tenancy was a change in their legal status due to political developments around 1973. The Rhodesia Front Government became more rigorous in its segregatory policies, which barred the co-existence of black populations within designated European areas. The gazetted forests had been designated European land according to the Land Tenure Act of 1969 making the keeping of tenants on such a property regime illegal. Tenants continued to occupy forest land, but they could not be developed legally. Consequently, the agriculturalist lost his job as a result of these political developments. Secondly, since these plans had always lacked support within the FC hierarchy, the political circumstances provided an excuse for stopping the plans. The third factor was the escalation of the liberation war which made it impossible to work in forest areas. Furthermore the FC, as a quasi-government department, could not be seen to support the war through concessions to black tenants which effectively would give them access to European land.

With the attainment of independence in 1980, a lot of people, including relatives and families of the `legal' tenants, spontaneously moved into the State Forests, see table 1. Table 1 shows the relationship between the FC and the number of households living on forest land during the peak of the "squatter problem" in the late 1980s. Since the war had been fought on the premise of land redistribution, the time had come to move into the 'promised lands'. FC employees within the forests at the time reported "squatters pouring-in" from neighbouring communal lands. The agriculturalist, who had been instrumental in the agricultural plans of the early 1970s, had become so frustrated that efforts to re-recruit him were fruitless. In addition, there was continued opposition from

the decision-makers within the Forestry Commission hierarchy to the development of formal arrangements with forest tenants or squatters. The agricultural plans had been dependent upon a finite number of tenants who could be supported by the available land resources. Tenants were to be kept to specific numbers within each forest area.

At independence, in 1980, there were more 'squatters' than tenants and these could not be evicted as they were backed by the new government. In any case, the government had promised the FC that suitable land would be found in time to resettle them. However, 'dissident activities' broke out in the mid-1980's which stopped efforts to resettle the 'squatters'[3]. There were no more development initiatives of this nature in Matebeleland and the Midlands, where all these indigenous state forests are located, while the dissident war was being fought. More people moved into the forest areas during this period. The situation was worsened by the fact that the Forestry Commission ceased its operations altogether within the forests as the lives of its employees were in danger. It was not until 1987, when the two fighting major political parties within the country merged and the war ended, that forestry activities resumed within the forest areas. By this time there were many more people dwelling within forest land than had been envisaged under the tenancy system.

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[3] Hostilities between the ruling party and the main opposition party, which drew most of its support from the western half of the country, deteriorated into a war between the government and dissidents, respectively. The insurgency by some supporters of the opposition party hindered many development activities in the western region of Zimbabwe while it lasted from 1983 to 1987. Forestry operations in the same region also ceased during the period.

TABLE 1 - THE RELATIONSHIP BETWEEN THE FORESTRY COMMISSION AND NEIGHBOURING COMMUNITIES

DEMARCATED INDIG. FORESTS	AREA (ha)	PROVINCE	DISTRICT	NEIGHBOURING COMMUNITY	RELATIONSHIP WITH FORESTRY COMMISSION						COMMENTS
					POPULATION-HEEHOLDS	POACHING	SQUATTING	LEASE AGREEMENT	EXTENSION	CORDIAL RELATIONS	NONE	
COMMERCIAL						—	—	TRADING STORE		—	X	ILLEGAL GRAZING (CA 100 LIVESTOCK)
CHISENGU	4006	MAC	CHIMANIMANI	COMMERCIAL		—	—	—		—	X	
LION HILLS	2947	MAC	CHIMANIMANI	FARMING		—	—	—		X	—	
GLEN COE	2050	MAC	CHIMANIMANI	NGORIMA		—	—	TRADING STORE		X	—	THERE ARE 12 FAMILIES RESIDENT & CLAIMING BORDER DISPUTE
TARKA	4343	MAC	CHIMANIMANI	COMMUNAL AREA								
MARTIN (I)	700	MAC	CHIMANIMANI	CHIKUKWA (CA)		—	X	—	—	—	—	SQUATTERS IN MARTIN (I) HAVE SINCE BEEN REMOVED. AREA IS UNDER NATIONAL PARKS AND WILDLIFE MANAGEMENT. MAJORITY OF FORESTRY COMMISSION EMPLOYEES ARE FROM THIS CA. CHIKUKWA PEOPLE ARE NOW WANTING MARTIN (I) HANDED OVER TO THEM.
MARTIN (II)	4300	MAC	CHIMANIMANI	CHIKUKWA (CA)		—	—	TRADING STORE	—	X	—	
MUKWAI	6353	MAC	CHIMANIMANI	MUKWAI		—	—	X	—	X	X	
NYAMBEWA	5484	MAC	CHIMANIMANI	COMMERCIAL		—	—	X	—	—	X	
TANDAJI (CASHEL ESTATE)	5450	MAC	CHIMANIMANI	FARMING		—	—	X	—	—	—	
STAPLETORD	24600	MAC	MUTARE	RUPINDA CA		—	X	TRADING STORE	—	X		SQUATTERS IN MASWERA HAVE BEEN REMOVED BUT STILL CONTINUE TO CULTIVATE IN FOREST AREA. MOST OF THE FORESTRY COMMISSION EMPLOYEES ARE FROM THIS CA.
MASWERA	10700	MAC	MUTARE	RUPINDA CA		—		—	—	X		
ERIN	15500	MAC	NYANGA	COMMERCIAL FARMS		—	—	TRADING STORE	—	X		
NYANGUI	8170	MAC	NYANGA	COMMERCIAL CA SAUNYAMA RESETTLEMENT		—	X	TRADING STORE GRAZING	X	—	X	SQUATTERS IN NYANGUI HAVE SINCE BEEN MOVED OUT. SINCE REMOVAL THERE HAVE BEEN ARSON, STOCK THEFT AND CUTTING OF CATTLE FENCES.
MTAO		MIDLANDS	CHIRUMANI	CHIRUMANI		—	—	GRAZING	X		—	POACHING OF WOOD, GRAZING AND RAIDING OF BEE HIVES
MAFUNGABUSI FOREST						X		X				
BANTI		MAC	MUTARE			X		—	X	X	—	SQUATTERS IN MAFUNGABUSI WERE MOVED. LOGGING CONCESSION, GRAZING, HUNTING, ETC. STILL CONTINUES. CIDA IS GOING TO FUND A RESOURCE SHARING MODEL FOR GRAZING.
UNGWE	567	MIDLANDS	GOKWE	COMMERCIAL & GOKWE CA	411	X	—	—	X	X	—	
MUBIZONGWE	1420	MIDLANDS	GOKWE	COMMERCIAL & GOKWE CA	801	X	—	—	X	X	—	
MAFUNGABUSI	82100	MIDLANDS	GOKWE	COMMERCIAL & GOKWE CA	3832	X	X	X	X	X	—	
KAVIRA	28300	MAT	HWANGE	BINGA CA	6161	X						
SUKWIRA	25500	MAT	BINGA	BINGA CA	5134	X	X	—	—	—	—	
BEMBERI	55100	MAT	LUPANE	BEMBERI CA	2165	X	X	X	—	—	—	BEMBERI HAS TENANT AND SQUATTER PROBLEMS
NGAMO	102900	MAT	LUPANE	LUPANE CA AND TSHOLOTSHO CA	710	—	—	—	—	—	—	GRAZING, PRESSURE AND THATCHING GRASS, WATER ACCESS (TSHOLOTSHO, GWAIN, BEMBERI, LUPANE)
LAKE ALICE	35000	MAT	LUPANE	GWAMPA CA	2042	X	X	—	—	—	—	
UMGUSA	3471	MAT	NYAMANDLOVU	FOREST AREA		—	—	—	—	—	—	
WOLO	2900	MAT	BINTI	BINTI CA		X	X	—	—	—	—	SQUATTER PROBLEMS IN WOLO
NYAMANDLOVU (GRANTS BATLEY)	7420	MAT	NYAMANDLOVU									
CHESA	14250	MAT	NYAMANDLOVU	COMMERCIAL AREA		X	X	—	—	—	X	CHESA AND INKEZE HAVE SQUATTER PROBLEMS
INKEZE EXTENSION	8400	MAT		COMMERCIAL AREA							X	
INKEZE	35800	MAT	NYAMANDLOVU	TSHOLOTSHO	1136	X	X	—	—	—	—	GWAI HAS TENANT AND SQUATTER PROBLEMS
GWAI	144230	MAT	HWANGE	COMMERCIAL/LUPANE CA	638	X	X	X	—	—	—	
GWAMBA	47000	MAT	NKAYI	GWAMPA CA	2451	X	X	—	—	—	—	
NDOLA	67200	MAT	LUPANE/BINGA	LUPANE/BINGA	3721	X	X	—	—	—	—	NDOLA HAS SQUATTER PROBLEMS
UMGUSA	32200	MAT	TSHOLOTSHO	COMMERCIAL AREA		X	X	GRAZING TRADING STORE	—	X	—	UMGUSA WILL BE PART OF CIDA FUNDED PROJECT FOR WILDLIFE MANAGEMENT WITH CA PEOPLE. TSHOLOTSHO HAS HAD ASSISTANCE FROM F.C. WITH PROBLEM ANIMAL CONTROL AND F.C. HAS PURCHASED ELEPHANT
FULLER	23300	MAT	VICTORIA FALLS	SAFARI AREA								
KAZUMA	24000	MAT	VICTORIA FALLS	NATIONAL AREA		—	—	—	—	—	—	
PANDA MASUIE	35500	MAT	VICTORIA FALLS	NATIONAL PARK								
MAJUTU	2100	MAT	VICTORIA FALLS	COMMERCIAL AREA								
SINJANI	34400	MAT	PETE	SAFARI AREA		—	—	—	—	—	—	TWO LEASES WITH PHOTOGRAPHIC SAFARIS

2.3 Current Situation

The current policy of the FC is that all forest communities, whether the original legal tenants or the 'squatters', should be relocated out of the forest areas (Matose and Clarke, 1993). All forest occupants are currently considered illegal settlers, as permit granting was disturbed during the unstable years and was never resumed. The overall situation within all forests owned by the FC, including around plantations is presented in Table 1. Within the State Forests of the western parts of the country, there are 1,425 families, or 11,459 people, who are all considered for resettlement outside the forest regardless of whether they are ex-tenants, and legally entitled to live within the forests, or squatters, living within them (Matose and Clarke, 1993). Such relocation from the forests has been justified for the following reasons:

> a) If any people are allowed to stay, pressure will continue from others to settle, and this will lead to the destruction of the forests.
>
> b) The Commission is not in a position to provide the level of infrastructure that is available to Communal Land residents, and therefore would be guilty of depriving forest occupants of the right to share development being enjoyed by those living in Communal Lands, by allowing them to stay in the forests.
>
> Matose and Clarke, 1993:65.

In trying to remove illegal occupants from state forests, the FC implemented a policy of relocation of over 295 families from Chesa, Inseza and Umgusa Forests to neighbouring Tsholotsho Communal Land. The second strategy involved the excision of some state land adjacent to state forests in Bembesi/Gwaai, and Kavira forest reserves and resettling 'squatters' in these areas. These strategies were never implemented due to lack of support from state authorities responsible (Matose and Clarke, 1993:65). Currently the

FC continues to experience tenuous relations with forest communities, some members of which are seasonally employed on forestry operations. Over the last two years the FC has embarked on a pilot programme that has been referred to as 'resource-sharing', which is contrasted with 'joint forest management' in this study. Both terms are discussed in the next chapter. While this initiative is under way, illegal settlers continue to be resettled outside forests and plantations.

The pilot programmes have been devised to deal with conflicts with neighbouring communities over resource use. While these initiatives are in their infancy, forest managers on these reserves continue to be engaged in serious feuds with forest-dependent communities. For example in the Mafungautsi Forest, a Forest Protection Unit was introduced and has been armed with guns to confront 'illegal hunters' from neighbouring communities after a forest worker who had challenged them had been critically injured (Matose and Clarke, 1993:66).

2.4 Mafungautsi historical overview

A brief history of the Mafungautsi Forest Area (MFA) is given as it was chosen as the study area. MFA lies in the Gokwe District of the Midlands Province of north western Zimbabwe (see Figure 1). The forest illustrates the contradistinction between *de jure* and *de facto* management regimes that underlies all state forests in Zimbabwe. Mafungautsi was gazetted in 1954 for the value of its timber and as an important watershed area. On the one hand, the FC is legally mandated to protect commercially valued indigenous timber, primarily teak (*Baikea plurijuga*) and mukwa (*Pterocarpus*

angolensis), as well as to protect the catchment area that the Mafungautsi Plateau provides for the Zambezi River. The river is a major source of hydro-electric power for the country that is generated from the Kariba Dam. The MFA is the source of the Rutope, Sengwa, Mbumbusi and Ngondoma rivers which are all tributaries of the Zambezi. Commercially valued indigenous timber is harvested through concessions granted to the highest bidding private company. Such timber is usually harvested on 60 to 80 year rotations, depending on the species. Beach (1980) says that the Shangwe people joined the earlier Tonga settlers on the Mafungautsi Plateau, on which the forest is situated, in the nineteenth century. Probably, because of this history, the Shangwe, together with other ethnic groups that joined them later, continue to contest the authority of the FC over the use and control of resources from the forest by illegally continuing to use them. Forest managers allege that haphazard cutting of trees and uncontrolled grazing in the forest ultimately leads to siltation of the rivers that drain to the Zambezi, thereby eventually affecting power generating capacity at Kariba. This partially explains why forest encroachment by neighbouring communities is severely penalised.

Currently the MFA is the third largest in Zimabawe with an area of 82,000 hectares. At the time that Mafungautsi was expropriated from local communities, it comprised 105,000 hectares. By the early 1970s, many "squatters" had settled in the forest such that in 1972, 23,000 hectares of forest land were transferred to communal ownership (Bradley and Dewees, 1993; Matzke and Mazambani, 1993). In the same year, unsettled communal land to the south of the forest was added to the forest in partial compensation. The transfer of land to communal people did not check the squatter

problem such that by the early 1980s there were 800 families living within the forest. 320 of these families were registered and were legally entitled for resettlement while the remaining 480 families were not registered and as such were not entitled to official resettlement (Bradley and Dewees, 1993). Attempts were made by the Minister of Natural Resources and Tourism, under which the FC falls, at that time to persuade the families to move out of forest land. Some were evicted from the forest in the early 1980s while the rest were given a three month order by the Governor of the Province in 1985/86 after which they were forcibly evicted from the forest.

Despite the evictions, problems of illegal grazing, which is alleged to affect the natural regeneration of trees, illegal hunting, collection of various products from the forest without authorization continue to be experienced around MFA (Bradley and Dewees, 1993). Among the problems experienced is deliberate fire which causes considerable damage to trees (Matzke and Mazambani, 1993). One of the aims of this study was to investigate what happened to the evicted families and whether they are part of the communities that use the forest illegally.

2.5 Policy framework

Katerere *et al.* (1993:12), stated; "The principal issue is inequitable access to land and security of tenure amongst various landholders. Increased demand for more land, and the illegal occupation which sometimes occurs, are causing concern for the state institutions." The FC is one such state institution that is facing considerable illegal occupation as indicated in Table 1. Bradley and Dewees (1993) also emphasize the same

point by stating that the pressures of nature, that is "depredations by communities on forest reserves", are likely to be on the increase rather than decrease. Fortmann and Bruce (1993:199-200) observe that state lands are sites of

> ... considerable tenurial conflict because local farmers frequently feel that they have the right to use the land and the trees, or other forest products, by virtue of their proximity or historical connection to the land and promises implicitly or explicitly made during the Liberation War. In a number of places local farmers have contested control of, and access to, Forestry Commission or DNPWM[4] land and trees by squatting, court cases, poaching timber and other forest products, and setting forest fires.

Such activities are in most instances criminalized in the 'aggressive approaches' that are adopted in state land exclusion which reduces incentives for local communities to support forest management activities (Scoones and Matose, 1993). That is, instead of seeking amicable and permanent solutions to the conflicts surrounding forests, the FC has resorted to using armed units which in the short term provide immediate solutions to forest encroachment, but in the long-term are not sustainable. Because of the delays in implementing a meaningful land reform programme by the state that have occurred since 1980, many people have settled on FC lands as they view them as part of state land available for resettlement and to which they have a right (Katerere *et al.*, 1993). Due to the lack of initiatives from government, the FC has had to shift its operational policy framework by development of resource-sharing schemes to ensure sustainable management of forest resources.

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[4] DNPWM means Department of National Parks and Wildlife Management.

2.6 Summary

The brief historical background that has been provided in this chapter points to the need to address these problems as they are likely to increase in future. The Government of Zimbabwe has failed to address the land conflicts surrounding state lands either through legislative reform or through giving disenfranchised communities alternative land for settlement and cultivation. The Forestry Commission has been compelled to take short-term measures to protect forest resources on behalf of the nation which is its mandate. In order to mange the forest resources more sustainably, the FC needs to seek long term solutions in which local communities have a legalized stake. While these solutions are being determined, communities within and adjacent to forests continue to be deprived of their heritage, access to forest lands that were excised from them.

Chapter three

REVIEW OF RELATED LITERATURE

In this chapter, the concept of 'common property' is defined and is contrasted with other forms of property tenure. Much of the discussion that follows will focus on aspects of state property and private property regimes. A theoretical framework about state property is not developed because there is no direct relevance to the Zimbabwean situation that was studied. Furthermore, a grounded theory approach was used in studying the problem. This approach relies more on discovery of a theoretical framework than relying on one developed prior to an investigation (Charmaz, 1983). The rights and the problems associated with the nationalization and privatization of previously communal property are also highlighted. Joint forest management experiences from India are reviewed in contrast to proposed resource sharing in Zimbabwe. A framework drawing from the concept of participation is developed for analyzing joint forest management programmes. The review is not broad because of the dearth of literature related to the focus of the study.

3.1 Property regimes

Resource management regimes are defined by structures of rights, duties and privileges which serve the purpose of managing people in their use of natural resources. Thus a resource management regime is defined as a structure of rights and duties which characterize "the relationship of individuals to one another with respect to that particular

environmental resource" (Bromley and Cernea, 1989). The same authors state that; "Property is not an object such as land, but rather is a right to a benefit stream that is only as secure as the duty of all others to respect the conditions that protect that stream" (Bromley and Cernea, 1989:22). Those with the right have expectations under the law, and in practice, for their claims to be respected by those with the duty.

3.1.1 State property regime

The first of these property rights and resource regimes, which is also the focal point of this study, is state property. This is a regime in which the ownership of and control over resource use lies with the state. Individuals and groups may be able to make use of the resources but only "through the forbearance of the state" (Bromley and Cernea, 1989). Feeny *et al.* (1990) also say that the rights to resources under state property are vested exclusively in government which makes decisions concerning access, including the level and nature of their exploitation. The state may directly manage such natural resources under its ownership or indirectly through government agencies or parastatals or else it can lease them to groups or individuals who are issued with usufruct rights for specific periods of time. Such usufruct rights, however, may not bestow long term tenurial security.

3.1.2 Private property regime

The second property regime is private property whereby there is a legally and socially sanctioned ability to exclude others and "allows the fortunate owner to force others to go elsewhere" (Bromley and Cernea, 1989:12). Exclusion of other resource users and the regulation of resource use results in the concentration of ownership of land

in a 'few hands', thereby creating the world's landless masses. A fallacy which Bromley and Cernea (1989) point out, is that private property does not necessarily lead to the highest and best use of the land or resources. Another problem associated with private property is that "a good deal of theft has ended up as private property -- especially in the western world where European colonizers appropriated vast terrain inhabited by tribal people" (Bromley and Cernea, 1989:13).

3.1.3 Communal property regime

Communal property regimes are those in which resources are held by an identifiable community of interdependent users in which outsiders, in relation to that community, are excluded while use by members is regulated by cultural norms. In contrast to state or private property, rights under a communal property system, are not transferable nor are they exclusive. Sanctions and incentives for resource use and regulation may become inoperative when local institutional arrangements are disrupted by pressures and forces beyond the control of such communities. The breakdown of local arrangements leads to resource 'mismanagement' and has been argued to represent a 'tragedy of the commons' by those who adhere to Hardin's (1968) tenet. Such a 'tragedy' arises from population growth, technological changes, and climatic and political forces combining to destabilize traditional property institutions, as happened in Europe with the enclosures of the 15th and 16th centuries (Runge, 1990). The breakdown of communal property arrangements for resource use has often resulted in arguments being made for the privatization and nationalization of such resources. Under other circumstances the breakdown of a communal property regime degenerates into an open access one.

3.1.4 Open access regime

Open access regimes represent "the absence -- or the breakdown -- of a management and authority system whose very purpose was to introduce and enforce a set of norms of behaviour among participants with respect to the natural resource" (Bromley and Cernea, 1989:20). This means that there are no well-defined property rights such that access is unregulated, that is, it is "free and open to everyone".

3.1.5 Implications of property regimes for resource management

When one uses this analytic typology for the situation in Zimbabwe, bearing in mind the argument that "in practice natural resources are rarely managed solely within one of these types" (Murphree, 1993:3), state lands, such as reserved forests, have characteristics of both state and private property regimes. When once communal forest lands were privatised and nationalized, as stated in the preceding chapter, the hope and intention was to have more sustainable management of forest resources within them. The study seeks to inform this problem.

Besides stating the fallacy that nationalization and privatization do not necessarily lead to better or sustainable management of resources, Bromley and Cernea (1989:10) also point out that;

> Evidence is thus accumulating that the promotion of privatization -- or nationalization -- carries with it the risk of depriving large portions of the population of their livelihood without delivering on the expected promise of more effective resource management.

Evidence to support this proposition is presented in the section below. The historical background presented in the preceding chapter would also tend to support this argument.

At the same time, the study sought to investigate whether such a proposition is supported around Mafungautsi Forest Area. In order for any property regime to operate, an authority system is needed to ensure that the expectations of right holders are met. Further to that, "compliance, protected and reinforced by an authority system, is a necessary condition for the viability of any property regime" (Bromley and Cernea, 1989:17). Thus, private property regime managers rely on the authority of the state and its coercive power to ensure compliance and prevent 'intrusion' by non-owners. If this authority and power were not exercised, even such a regime, despite its tenurial security, would degenerate into an open access situation. Given the political climate that exists currently in Zimbabwe, as presented in the preceding chapter, the study also sought to investigate whether or not the FC can exercise its authority in the light of 'intrusions' by surrounding non-owners who use resources from a state forest.

Feeny *et al.* (1990) also point out two characteristics of common property resources, in the broad sense of the concept, that are problematic for property rights. In the first instance, it is difficult to control access by potential users because of the physical nature of resources, although they can be fenced or protected. That is the problem of 'excludability'. The second relates to 'subtractability'. Even with cooperation, there is always the difficulty arising from the fact that exploitation of resources by one user affects other users' capabilities to do the same. That is, one user subtracts from the welfare of other users through exclusion. The study investigated whether this in fact was the case with people who were evicted from their original lands within Mafungautsi forest, on which they had cropped for many generations. Would such communities'

welfare be adversely affected by being denied access to their original lands?

Yet another problem is raised by some authors who contend that; "exploitation of state forest resources is often arranged through the 'concession', a temporary and conditional form of tenure employed by the state to permit exploitation of the forest resource by private timber companies" (Fortmann and Bruce, 1988:275). Such a set-up, it is argued, aggravates relations among local users of resources and concessionaires and forest managers. This 'commoditization' of nature or some parts of it, leads to confrontation with local communities (Herring, 1990a). It happens in forests valued for their timber, initially by colonial states, but is perpetuated by independent states through their claim of proprietary privilege on lands traditionally subject to local communal rights and usages. Further to this, a conflict of value systems develops between states and local people. While the former has developmental goals based around revenue generation through exploitation of valuable timber, as well as the scientific objectives of forest management and conservation, the latter have a contrasting value system revolving around using such land for self-sustenance through agriculture (Herring, 1990b:2). The historical background of Mafungautsi Forest Area shows the existence of a conflict revolving around this contrast of objectives and values. The FC would want to continue to generate revenue from valuable timber species like teak, as well as conserve forest resources in order to protect the watershed of the major tributaries of the Zambezi river. On the other hand, it would appear that communities would want to use the forest primarily for farming and settling as they have done for many generations. The study thus explored these value conflicts.

3.2 Experiences from Elsewhere

In this section, the concept of joint forest management, or resource-sharing as it has been used by the FC, is defined and examples of how this initiative has been used to solve conflicts between forest departments and neighbouring forest-dependent communities is explored and discussed. Case studies from India are reviewed and contrasted with a "resource sharing model" developed for Zimbabwe.

Resource sharing is an intermediate stage between complete participation by communities in management of reserved forest resources and complete exclusion by forest departments, and is a common scenario in most state forests world-wide (see section 3.4). The joint forest management concept, on the other hand, is when "communities become partners in protecting and managing state owned forest resources, leading to a legitimized role in the control of resources which they have used for generations" (Campbell, 1992:36). This implies the sharing of responsibilities and revenue between the forest managers, such as the Zimbabwe FC, and communities living within or adjacent to state forests. Sharing becomes even more imperative when the history of such forests is considered. That is, forests were reserved under colonial rule under the guise of protection of the environment, an example being watersheds. This resulted in the alienation of the forest-dependent communities which used to live in them. In some cases, state forests resulted in the excision of land from local communities that used to survive on the forest lands. The resource sharing model is discussed first in contrast to the joint forest management experiences from India.

3.2.1. Resource sharing in Zimbabwe

Much of the discussion in this section draws from the review by Matzke and Mazambani, (1993). These authors review the range of existing resource sharing activities around Mafungautsi Forest Area (MFA) before developing their model for resource management with community involvement. While the review is mostly conceptual, and not based on much developmental experience, it still suffices for the purposes of contrasting it with the joint management concept discussed in the next section. This conceptual model offered by Matzke and Mazambani[5] appears to be the basis for the formulation of a resource sharing pilot programme by the FC.

There are three principal ways by which resource sharing takes place within MFA. Prior to 1986, settlement and cultivation within the forest were legally sanctioned and could be considered the fourth way through which resources were shared. Currently, the first means by which sharing takes place is through the issue of permits, by the FC to individuals to allow them to cut thatching and broom grass. In return the individuals give the FC two out of each five bundles of grass they cut. The bundles that the FC gets are later sold to other communal dwellers. Local people benefit by getting materials they need for their household economy while the FC is estimated to generate revenue worth Z$10,000 per year from this licensed sharing. Within the same category of resource sharing, commercial loggers who are contracted through concessions by the FC to harvest commercially valued timber, mostly teak and mukwa. Such commercial companies

[5] Matzke was a research fellow with the Centre for Applied Social Sciences at the University of Zimbabwe and had been contracted to undertake a study on livestock use around MFA. This study would assist the FC in developing resource sharing studies around the MFA. Mazambani was the Manager of the Forestry Extension Services Division of the Forestry Commission.

usually pay a set price to the FC based on the volume of timber for each species.

The second form of sharing is unlicensed and unplanned. Matzke and Mazambani (1993) argue that this represents local informal agreements through which local people are allowed to graze their livestock in and collect dead/dry firewood from the forest. It is estimated that over 20,000 cattle graze in the forest at various times during a year (Matzke, 1993). This practise is characterised by insecurity for both parties to the agreement. From the community perspective, people could be stopped from having access to the resources they need at any point the FC changes its practise. On the part of the FC, such an agreement would be difficult to revoke or limit without adverse consequences for the communities and the society at large (Matzke and Mazambani, 1993).

The third form of sharing is one that is both unsanctioned and illegal, which is generally referred to as "poaching". A wide range of products are illegally acquired by adjacent communities from the forest which sometimes results in some people getting arrested. Vermeulen (1994), recorded illegal timber cutting for building materials at a level of 26 percent, even one kilometre inside the forest boundary, as one example of such illegal sharing. Matzke and Mazambani (1993) point out that even women collecting mushrooms from the forest are sometimes prosecuted for this activity. This study sought to fill the gap in knowledge about the whole range of products that are collected illegally by local people.

On the basis of a review of the existing arrangements Matzke and Mazambani (1993) proceeded to develop a resource sharing model whose major elements are presented here. While the model has the potential to address inherent problems existing

across tenurial boundaries, the authors admit that the model has little hope to offer as a management tool. The problems that the model has the potential to address include; resource related revenue generation, high management costs and insecurity of tenure resulting from neighbours who covet protected land (Matzke and Mazambani, 1993:11). One of the key elements within the model is that both sides in a sharing arrangement tend to benefit without the state being an obstacle. The underlying problem with not only state controlled, but commercially controlled land as well, is previous governments had the "power" to own and manage such lands, however, that power did not confer the "authority" to do so. This leads communities whose lands were forcefully taken from them to contest the authority that bodies like the FC have over such land. The development of a resource sharing scheme, it is argued, would bestow authority to communities with historical ownership claims to state and other land, through concessions that would be made to them (Matzke and Mazambani, 1993:13). Although bestowing authority to communities with historical claims would appear attractive initially, there would be problems reconciling that argument with issues like proximity to the neighbouring land and landlessness, in ascertaining beneficiaries such a scheme (Matzke and Mazambani, 1993:13). This study is informed by this argument as it made displaced people a major focus of investigation, given their claims to forest lands.

Another element for consideration in a resource sharing scheme that Matzke and Mazambani (1993) discuss pertains to the role of agencies like the Forestry Commission becoming a source of constraint in the range of activities that the agency can embark on. They highlight that the FC is a resource agency that is limited in focus to issues that

relate to trees only. Under such a scheme, agencies like the FC should not be limited by their narrow focuses in view of the multiplicity of resource users' interests which would need to be incorporated in such a scheme. In this regard, the authors offer a broad range of benefits that different groups of people might target for in a resource sharing scheme (see Figure 2). The focus of resource sharing should not be about the resources to include or exclude, nor should the focus be constrained by the narrowness in training of personnel within agencies like the FC. What to share should be dictated by the demands of the situation (Matzke and Mazambani, 1993).

An important element that the authors also discuss relates to the definition of target communities. They argue; "Community concepts evoke collective social units with sanctioned authority and legitimacy derived from processes which the group itself is instrumental in initiating, monitoring, and adaptively perpetuating" (Matzke and Mazambani, 1993:17-18). They contrast the community concept to a cohort in which, "groups of people are lumped together by some categorical criterion", such as ethnicity (Matzke and Mazambani, 1993:17). There are a number of criteria that the authors identify that are pertinent in defining a community, especially one which might benefit from a project. The first one relates to "spatial proximity" which they argue to have a strong bearing on a community's use of resources. For example, in relation to grazing in Mafungautsi Matzke (1993) notes that herdsmen rarely go more than 5-8 kilometres to graze their livestock in the forest.

Figure 2. The range of potential benefits to different people in a resource sharing scheme.

Claimed right	Likely Potential Claimants
Rights of Trespass & Passage	Neighbouring people
Rights to Perform Rituals	Spirit Medium & Traditional Leaders
Water Rights	Nearby Residents and Herders
Gathering of Fruits and Mushrooms	Women & People facing Food Shortages
Collecting Edible Insects	Women
Broom Grass	Women
Basketry Materials	Women
Bark	Nearby Residents
Pottery Clays	Women
Firewood	Nearby Residents
Charcoal Stock	Men
Wild Honey Collection	Men
Bee Hive Placement	Men
Medicinal Plants	*N'angas* (Healers/Herbalists)
Hunting Wildlife	Men
Safari & Tourist Revenues	District Council, State Agents
Timber Concession Revenues	District Council, State Agents, Communities
Fencing Materials	Communal Land Farmers
Hoe & Axe Handles	Communal Land Farmers
Ox Yoke Timber	Communal Land Farmers
Grazing	Livestock Owners
Construction Materials	Local Communities
Brick Clays	
Poles	
Thatching Grass	
Heavy Timbers	
Merchantable Timber	Concessionaires
Carvable Stones	Artists
Saleable Minerals	Unemployed, Mining Entrepreneurs
Cultivation	Former Residents, Landless
Residence	Landless
Land Ownership	Former Residents, Landless

Source: Matzke and Mazambani, 1993.

This definition of community provides a problem in the sense that some women come from as far as 250 kilometres away from Bulawayo to collect thatching grass from Mafungautsi (Matzke, 1993). To use such a community definition would disadvantage these women from benefiting from a sharing scheme.

The second criterion in a definition of community relies on a particular class of people who share a resource trait. This aspect equates a cohort with a community. Such a definition would augur well with a "predetermined resource spectrum" to include in a resource sharing project (Matzke and Mazambani, 1993:19). This would work for a project like a grazing scheme, in which only those with livestock would benefit from such a project. On the other hand, this would disadvantage people who might not own cattle at the onset of the project but would want to do so in the future (Matzke, 1993).

The third criterion for defining a target community is one in which "it might make more sense to graft the new approach on to existing administrative arrangements" (Matzke and Mazambani, 1993:19). Such a definition would entail working with an already existing political/administrative structure such as the 'traditional' village or the contemporary VIDCO[6]. The advantage would be working with a functional structure already in place while the disadvantage would be inheriting existing problems within such a structure into a new project.

Below are the authors' suggestions for setting up a resource sharing project:

a) Localization of authority to existing governance structures in defining a target

[6] VIDCO is an acronym for village development committee. VIDCOs were set up by the current government in 1982 as the smallest administrative unit which comprises 5-7 of the former/ traditional villages. Although officially the term refers to the committee, in practice it also refers to the administrative entity that combines these old smaller villages into one structure.

community which would not preclude the agency such as the FC, from participating in the implementation of management decisions pertaining to the project.

b) Understanding and recognizing community *de facto* use of resources from protected lands.

c) Legalizing selected activities currently defined as poaching in order to remove the greatest source of conflict with neighbouring communities.

d) Sharing authority with communities primarily responsible for illegal resource use in order for them to combat this behaviour.

e) Changing existing laws which are prohibitive of even the most environmentally harmless activities like mushroom collection around Mafungautsi.

f) Localising the granting of permits to local leadership of communities, coupled with clarification of what would be permitted and not permitted under the scheme.

g) Creation of spatially "fuzzy", rather than sharp boundaries, such that activities on both sides of a protected area boundary are equally important.

h) Being prepared to learn from mistakes as the resource sharing arrangements develop as resource related projects require a long-tern commitment.

Matzke and Mazambani, 1993:22-29.

3.2.2 Joint forest management in India: A case study

Some 95 percent of India's forest land is owned and managed by state government departments as a result of laws and policies that have evolved over more than a century.

The effect of these laws has been to nationalize community and private forest lands leading to the gradual erosion of the rights and concessions of forest-dependent communities (Campbell, 1992). The historical mandate of forestry departments has been to maximize revenue and protect the environment. Over the years they have been faced with expanding populations of forest-dependent communities, whose custodial control had been alienated, such that forest managers find it impossible to manage their forest estates sustainably.

Communities have treated forest lands as *de facto* open access resources, thereby leading to the gradual degradation of the forests through exploitation by the two parties. In the 1970s and 1980s, forestry officials in West Bengal, Gujarat and Haryana states recognized that they could never cope with the need to protect forest resources without the participation of local communities. This perception resulted in the formation of Forest Protection Committees (FPCs) in each of the three states. In Haryana these were referred to as Hill Resource Management Societies (HRMSs) (Campbell, 1992). In each state the committees were tasked with protecting degraded forest lands from illegal cutting, fires, overgrazing and encroachment, in return for access to a wide range of non-timber forest products. In one case, the government gave as much as 25 percent of net returns from managed forests to the FPCs involved (Campbell, 1992:3).

As a result of the successes enjoyed by these pioneer states, the Indian national government issued an order in 1990 requesting all states to undertake participatory forest management along these lines, with non-governmental organizations (NGOs) acting as the intermediaries and facilitators in the process (Campbell,1992:4). The same author reports

that by March, 1992 as many as nine states across India had passed regulations leading towards development of partnerships with local communities.

What is unique to the joint forest management process in India is the change in attitudes among forestry officials. Where officials used to be at conflict with local resource users, they are now working with them to develop local level management strategies. At the forest department level, the following elements in the management process have been instrumental: issuing of state orders and changes in regulations and establishment of working groups which included high forestry officials, representatives of NGOs and FPCs review of the implementation of joint management process. Forestry departments have also been involved in the registration and technical assistance of FPCs, and the distribution of benefits to communities, as well as research ecological and economic issues. At the next level of the implementation process, have been the NGOs who have been active in documenting the procedures, training communities and forest officers in development oriented processes. NGOs have also done research on sociological issues.

The FPCs themselves have been instrumental in the planning and coordination of protection activities, implementation of regulations for community collection and allocation of wood and non-wood forest products (Campbell, 1992:39). The FPCs are also active in managing grazing access to forest areas, mobilizing labour for activities, as well as managing conflicts within and outside of their villages. Joint management in this case study does not lead to land leases or allocation, but to giving usufruct rights to user communities, although under the national order there is provision to issue renewable ten

year leases.

The main features of joint forest management that are associated with these experiences are outlined below:

a) Recognition that forest dependent communities cannot be excluded from the care and control of forests that surround them, regardless of the legal ownership which may rest with the government. Related to this is the fact that old custodial protection systems are not successful in protecting forests.

b) Development of a partnership that is based on evolving joint management objectives in which communities share responsibilities and proceeds with forest departments.

c) Development of linkages between policy, training, field implementation and research. At the primary level, the forest department's responsibilities include: state orders and regulations, operation of working groups with other agencies involved in the process, development of training programmes, registration of FPC procedures, planning, monitoring and assisting committees, benefit sharing and research into ecological and economic issues. At the intermediate level are NGO groups whose responsibilities include: documentation of the experiences, training of FPCs, communities and department personnel, research and community level organization and facilitation. At the third and local level are FPCs whose roles include: planning and coordinating protection, adopting and implementing community regulations for resource use, sharing of proceeds and managing inter and intra village conflicts (Campbell, 1992:38-39).

d) Passage of enabling legislation is a prerequisite to joint management. The colonial Indian Forest Act of 1927 had to be by-passed by a government order of 1990 which gave rise to the current initiatives.

e) Fundamental change of attitude within tradition bound forest department officials and field staff as well as among communities suppressed for many generations, is also a prerequisite. For example, changes for departmental staff have been facilitated by training them in methods of working with communities, use of Participatory Rural Appraisal (PRA) techniques, and technical training related to non-timber forest products.

f) Learning from experience as the process evolves until viable land use alternatives are found without blocking institutional and management options as they emerge.

g) Participation of various stake holders including forest departments, local community members, NGOs, policy-makers and academic researchers, (Campbell and Khare, 1992:6-15).

3.3 Lessons from Elsewhere

Pragtong and Thomas (1990:167) state that:

> The forestry profession seeks to apply ecological principles in managing forest resources to meet societal goals. But as an agency of the government, a forest department is both empowered and restricted by policies of higher governmental authority, which are themselves influenced by events, movements, interests, and personalities in the larger society. A forest agency's institutional survival depends to a large extent on its ability to respond to such mandates.

The case study from India illustrates how forest departments there have survived by responding to changing mandates. Their responses have three main underlying issues. One of the most important issue has been the provision of secure tenure to specific user groups, by giving rights to communities to forest usufructs, in order to ensure village level protection and participation in management. Secondly, the use regulations have been flexible enough to meet new challenges and changing needs. Such regulations start off with lower value products and become more complex as efficiency is required. The third issue has been making investments which produced early flows of benefits to ensure that institutional capacity at the local level was enhanced more quickly than those with higher economic benefits in the distant future (Arnold and Stewart, 1991).

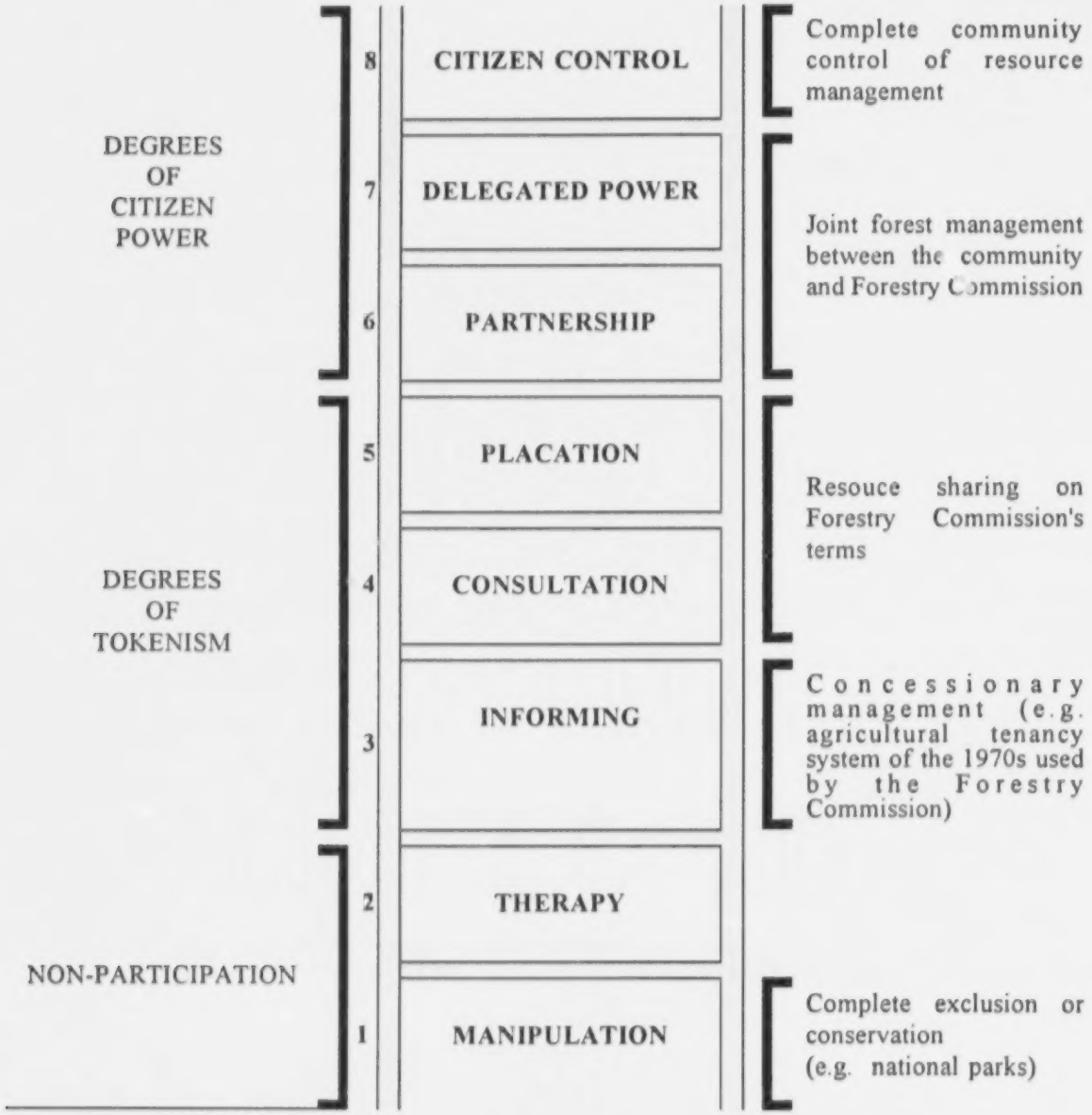
In the case study, forest departments have realised that communities view state forests as having *de facto* open access. If they do not participate in their management, they will contribute to their slow degradation. Campbell (1992:36) argues that forest departments "can never hope to protect forests without the help and involvement of local communities." This realization has led governments to carry out studies to find out how communities had been affected by their exclusionary policies.

3.4 Community participation and forest management

While security of tenure is an important element for co-management of forest resources an even more central concept that has been raised in preceding sections is that of participation. Arnstein (1969), uses "the ladder of participation" to indicate what the concept really entails. In Figure 3, various forms of forest management have been

juxtaposed to Arnstein's ladder to indicate the levels of community involvement entailed with each form. There are eight levels on Arnstein's ladder beginning with manipulation at the lowest rung and citizen control at the top. The highest level on the ladder represents the highest form of participation in which people literally control their own destiny. Parallel to that, this would be represented by a situation in which local people manage their own resources; that is they take over forests or resources formerly controlled by outsiders like the Forestry Commission. The top three levels indicate varying levels of citizen power or participation. The sixth level of partnership would be equalled by joint forest management. Levels 3-5 are levels that represent degrees of tokenism in which communities have token involvement. Resource sharing would either mean consultation or placation depending on the terms a resource agency like the FC offers to local communities. The agricultural tenancy system, as described in chapter two, together with limited access that communities had, would also fit anywhere between levels 3-5. The bottom two levels represent non-participation and these would be represented by complete exclusion or conservation in forest management options. That is a situation in which the state has complete control, such is the case surrounding national parks in Zimbabwe. This framework of participation helps the forest management process in determining whether neighbouring communities are merely involved or they are treated as partners by forestry institutions. Traitler (1973:9) defines participation as the stage when people become "the prime agents of their own development". The concept does not just refer to the sharing of duties in the implementation of forestry development, but also refers to the sharing of "power and privileges".

Figure 3. An adapted Arnstein's (1969) Ladder of Participation with parallel forms of forest management.



3.5 Summary of the review

The concepts that were defined and reviewed in this chapter guided the formulation of the study. Thus it was pertinent to investigate whether the nationalization and privatization of forest lands has led to sustainable management state forests in Zimbabwe. Instead, had the nationalization led to the development of conflicts of values between the FC and local communities? The study sought to increase knowledge about a state property regime in Zimbabwe. The study also explored the existing relationship between forest managers and local communities in terms of the latter's level of participation in the management of Mafungautsi forest. Knowledge about the current levels of community participation would be necessary for future joint management initiatives.

Chapter four

RESEARCH METHODS

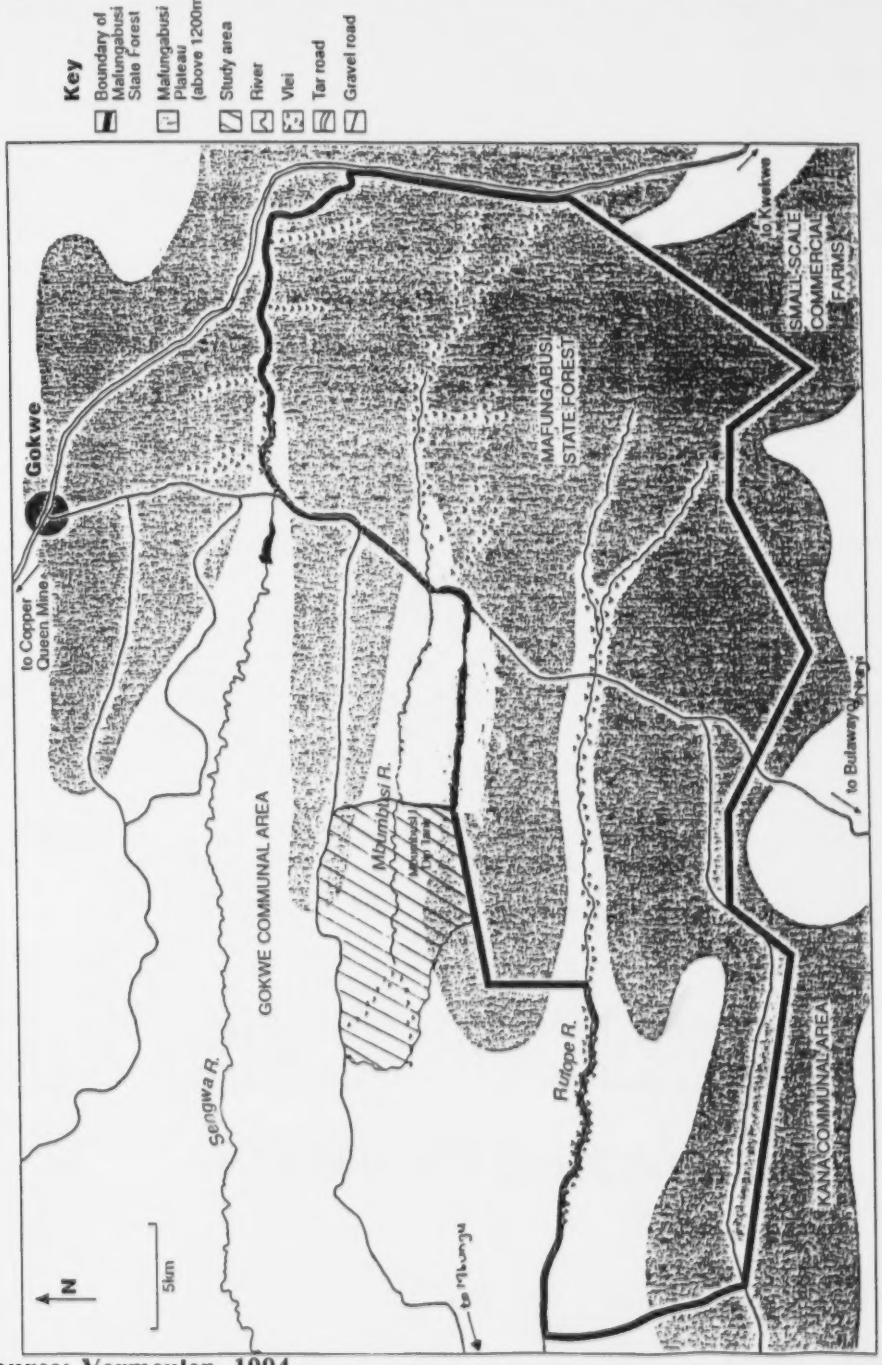
4.1 Location of the study area

The study was conducted in Chomusonde VIDCO in Ndhladhlambi Ward I, a communal area in the south of Gokwe District of the Midlands Province of Zimbabwe. The study area lies to the north of the western half of the Mafungautsi Forest Area (MFA) that used to be occupied by tenant families. Refer to Figure 1 in chapter two for the location of the forest within the country. MFA itself lies to the south-west of Gokwe centre. The study area also lies to the west of the Gokwe-Bulawayo/Nkayi road. The river Mbumbusi flows through the centre of the study area, dividing it into north and south. The study area is marked by slanted lines on the map in Figure 6. The northern boundary of the study area is the road to Mbungu. The southern one is the forest boundary.

4.2 General description of the study area

The terrain of the study area is shaped by the fact that it lies in the valley of the Mbumbusi river. The southern and northern parts of the area are generally flat as they form part of the Mafungautsi Plateau as is illustrated by the dark areas on the map in Figure 4. Most of the arable fields are on this flat plateau. The area has many gullies that drain to the Mbumbusi river, some of which have a depth of over twenty meters.

Figure 4. Map of the study area in relation to the Mafungautsi surrounds



Source: Vermeulen, 1994.

Along the Mbumbusi riverine and gully areas are the communal grazing and woodland areas while most of the remaining open spaces are cultivated. Most of the soils in the area are characteristic of the Mafungautsi Plateau, that is Kalahari sands, but in some depressions dark clayey soils occur. Settlement is fairly linear on the southern banks of the river below the plateau as well as on the northern side of the river. Settlements closer to the main road, to Mbungu, on the edge of the northern plateau tend to be more scattered. There is one school in the centre of the area which is one of the oldest in Gokwe District. The area is also serviced by one main shopping centre situated on the northern boundary by the road to Mbungu.

4.3 Selection of the Study Area

There were a number of factors that influenced the selection of this area for the study. During the process of legitimation of the study with Forestry Commission officials involved in implementing resource sharing around MFA, carrying out the study in one VIDCO[7] was recommended. As such, a VIDCO was considered ideal for the researcher to gain in-depth insights about how such a community used and perceived resources from the neighbouring forest. One of the major factors, as noted in the preceding chapters, was whether the VIDCO had a large number of people that were displaced from the forest in 1986. Ideally such a group of people would be living adjacent to the forest. Further to

[7] A VIDCO was considered ideal as it is the smallest official, in government terms, political/administrative structure or community.

these factors, the researcher had attended a Ward[8] workshop, in a different Ward, that was run by the FC to determine activities to be included in the resource-sharing programme. At this workshop there were suggestions that Ndhladhlambi Ward I, in which the study VIDCO lies, was rather "contentious" and posed a lot of problems in terms of its inhabitants' demands to the FC. A contentious community would probably have had the most adverse impact from previous policies of the FC, as described in chapter two, such that more could be learned from studying such a community. The area also had to be accessible by a vehicle to enable the researcher to get to most of the households. Chomusonde VIDCO was then selected on the basis of meeting all these parameters.

4.4 Gaining access into the community

In order to gain access into the community, the researcher relied on the knowledge gained from previous experiences in Zimbabwe. Getting access into the community was made easier by the researcher's being a Zimbabwean who could speak Shona. Shona was the language that most members of the community used for communication even though some spoke different languages within their homes. Living at a school that was close to the study area also enabled the community to trust the researcher, as he lived among them. First, permission to enter into the community was sought from Gokwe District Council and the Gokwe District Administrator before moving down to administrative structures at the local level. Thereafter, permission was obtained from all the

[8] A Ward is the next political/administrative structure after a VIDCO. Officially each Ward comprises 5-7 VIDCOs and is headed by an elected Councillor who represents the Ward at the District Council level, the highest local level governance structure.

political/administrative structures at the local level including: the local chief, the councillor for Ward I who happened to live in the same VIDCO, the ex-headman of the area who still retained a lot of influence in the area and the VIDCO leadership, in that order, respectively.

Assistance was also obtained from the District Forest Officer for Gokwe given his acquaintance with the local village based researcher, who lived in Chomusonde VIDCO. The latter was an employee of the FC who lived in the area. He became a key contact person in negotiating the researcher's entrance into the community, through his knowledge of local politics and custom. The researcher, and his study, was finally introduced to the rest of community by the leadership of Chomusonde VIDCO at a local meeting that was attended by over 120 people.

4.5 Legitimization of the Study

Prior to the commencement of the study, a series of discussions were held with the general manager of the FC and other personnel directly involved with implementation of the resource sharing project. These discussions were held to ensure the study would be of value to the end-users of the results and to ensure that the research would focus on areas that had not been studied in earlier work such as FES[9] (1993), Matzke (1993) and Vermeulen (1994). At the district level, agricultural and forestry extension officials were consulted about the relevance of the study objectives and how to legitimize these to the local community. At the community level, discussions were first held with the leadership,

[9] FES means; Forestry Extension Services, a division of the Forestry Commission.

as noted above, to explain the study and its potential contribution to their lives. Thereafter a meeting and discussion session with the rest of the community members was held as part of the legitimation process.

4.6 Methods of Data Collection

A combination of methods were employed in data collection because of the complex and sensitive nature of the problem under study. As such, a case study approach to the conflict was taken which was later complemented by the use of a questionnaire survey. Each of these methods is described in turn.

4. Case Study

The use of a case study enabled the researcher to conduct an in-depth inquiry of the problems surrounding the conflict between the state and a group of people that were evicted from the forest area, as well as other people living adjacent to the same forest. The case study encompassed the use of other qualitative research techniques, including in-depth and key informant interviews, observation and the use of Participatory Rural Appraisal exercises[10] with the Forest Protection Unit. It was for this reason that the qualitative component of the study took up to two-thirds of the field research period. This relatively longer period was necessary in order to establish rapport and gain meaningful insights about displaced people's lives at a basic level before understanding those of the broader community in which they lived. Community meetings and discussions were also

[10] The PRA exercise that was used was seasonal calendars. These were used to gain insights about forest activities that communities were engaged in, from the FPU point of view, throughout various periods of the year. The FPU then drew a calendar of these activities on the ground using local materials to enable both the researcher and them to visualize and analyze them.

held early in the study, to gain insights about issues affecting the community and to determine how to handle the data collection process. These meetings and discussions revealed a great amount of anger and scepticism towards the FC which required the researcher, thereafter, to be extremely sensitive in the research process, especially given the fact that he worked for the organization at conflict with them.

4.6.2 Questionnaire Survey

A questionnaire survey was used towards the end of the data collection process. The questionnaire focused on issues that had been given prominence by respondents in the first part of the study. The questionnaire was used to compare responses from displaced people with those of the rest of the community. Face to face interviews were used to implement the questionnaire. The instrument was a "forced-choice questionnaire" type as consistency in responses was sought. Furthermore, the response categories had been obtained from earlier methods of data collection so there were not many open-ended questions that were included in the instrument (see Appendix One). Implementation of the survey took nearly three weeks, including pretesting the questionnaire and training research assistants.

To pretest the questionnaire, research assistants were asked to select any of their three neighbours and interview them. The pretest was done to determine the appropriateness of the questions and response sets. The other reason was to ensure the clarity of the questions to respondents. Each of the research assistants had been given some basic training about how to conduct research before they could interview respondents. Some of the aspects that were covered in the training included: the study

objectives, who to interview, following customs of the respondents and how to translate the questions into Shona. After the training, the researcher accompanied each assistant for their first five respondents to ensure consistency in the way questions were being asked.

4.7 Sampling

Sampling for the survey was done on the basis of knowledge gained from initial qualitative investigations. This initial work had revealed the existence of two communities. On the one hand there was the displaced group of 47 people, who were the focal point of the first part of the study. All of them were interviewed. While on the other hand, there were 278 households in the rest of the community. The survey was conducted on a random sample of 131 people selected from this dichotomy of displaced people in contrast to the rest of the community among whom they lived. In order to capture this main dimension of difference, 47 displaced households were retained in the sample, given their fewer numbers in relation to other households, and then 84 other households, 30.2 percent, from the rest of the community were randomly selected. Lists of all households, from which the two samples were drawn from the community were obtained from the seven *sabhukus*[11] in the VIDCO, with the help of research assistants drawn from these respective villages. Each household was then assigned a number for a random selection process. The household was used as the unit of analysis. The

[11] A *sabhuku* is a 'traditional' head of a village, the lowest level community structure. Whereas VIDCO leadership is elected, *sabhukus* inherit their positions by virtue of belonging to ruling lineages of their village or area.

respondents of the study also included all the six people who make up the Forest Protection Unit (FPU) within Mafungautsi and forestry extension staff working around the forest. They were included in the sample as they are the people directly involved with the management of the forest and deal directly with local communities.

4.8 Study Topics, Sources of Data and the Methods

The two data collection strategies were designed to be complementary. The themes that emerged from the development of the case study and open-ended interviews became the topics[12] for inclusion in the survey. The following topics, methods and sources of data were used for data collection.

4.8.1 Topic one

The first topic was community history in relation to the reservation of the forest. Key informant and in-depth interviews were used. Key informants on this issue were former leaders of displaced people, the elderly among this group of people as well as elderly leaders of the rest of the community of Chomusonde VIDCO. In depth interviews were also held with all the displaced households. The interviews focusing on history were allowed to flow as naturally as other conversations would take place, especially between the elderly and the young. That is, the latter would listen very attentively. Previous research experience had taught the researcher to focus on historical issues before moving on to other topics. This made respondents more relaxed and gain confidence about their knowledge.

[12] Topics correspond to the study objectives and research questions stated in Chapter 1.

4.8.2 Topic two

The second topic sought to establish the nature of the relationships between neighbouring people and forest managers; community perceptions of forest resources, of forest managers and how the latter in turn viewed communities. Community experiences of the impact of the FC's privatization of the forest were also documented. In-depth and key informant interviews were held with forestry officials working around Mafungautsi, including members of the Forest Protection Unit (FPU) and with community leaders. Discussions and in-depth interviews were also held with displaced people. Further probing on this topic was done through the inclusion of questions in the survey instrument that focused on "perceptions". Some of the questions entailed the use of the Likert scale of agreement, as the response sets were expected to be the same (refer to section E, in Appendix One). The other questions were of the yes or no type.

4.8.3 Topic three

The third topic focused on forest product collection, patterns and priorities. Collection patterns were explored through the use of seasonal calendars with the FPU while priorities were established through ranking exercises[13] in the questionnaire, see question 21 in Appendix One. Collection patterns were also established through direct observations at the forest boundary by research assistants. They were asked to observe and write what they observed people doing in the forest while they herded livestock for a period of one week. The researcher himself also made some observations while

[13] Ranking to establish relative importance of products to households was achieved through the use of illustrated cards. On each of the cards, a product, e.g grazing, was illustrated through a rough drawing. The cards were then given to a respondent, after explaining what they were required to do, to rank each of the forest products or uses of the forest.

interviewing respondents in their fields on the southern border between the study area and the forest. These techniques were complemented by individual interviews and discussions, as part of the iteration. Where necessary, follow-up key informant interviews were conducted to obtain details. Such key informants were particular resource users like honey collectors, who were mostly young men, clay soil collectors, who were mostly women, and a few hunters that were in the study area. Research assistants were also key informants on this subject as they had lived and used resources in the area for a long time. Besides, they were more comfortable than other respondents to divulge their knowledge as they felt more secure.

4.8.4 Topic four

The fourth topic focused on the existence of local institutions for control of resource use and access, and was based on in-depth/key informant interviews of village leaders like *sabhukus*, the local chief, the councillor of the Ward, an ex-headman and VIDCO chairpersons. The researcher was also able to witness the effectiveness of local institutional arrangements for resource use while based in the area for the three month duration of data collection. This topic was relevant in order to establish whether there were any linkages between the breakdown of local capacity for resource management and incursions into MFA, as well as to determine if these institutions could have a role in future resource-sharing schemes. In the survey instrument, dichotomous questions to obtain negative or affirmative responses to the existence and effectiveness of these institutions were asked. (See questions 30-31 in Appendix One).

4.8.5 Topic five

The fifth topic of investigation focused on community perceptions of forest resources and willingness to participate in management initiatives. In order to gain a broad picture on the subject, in-depth and key informant interviews were held with displaced households and community leaders, respectively. In the survey, the aim was to measure the prevalence of these perceptions and willingness to participate in joint management among all respondents. There was also some attempt at exploring what they would have liked to use the forest for. These perceptions were also measured through the use of the Likert scale and contingent questions using yes or no as response sets.

4.9 Management of the interview process

Given the sensitivity of the study, issues had to be explored using community histories as the entry point to the interviewing process in the qualitative phase of the research. As much as was possible, the discussions/interviews were allowed to flow as naturally as possible as the respondents told their social histories in relation to the forest. Interview guides were used for probing issues at a greater depth. To avoid disrupting the respondents in the interviewing process, a research assistant was hired from the study area to take notes. The assistant was well known within the community of Chomusonde. Soon after the discussions, or in the evenings, depending on the convenient time, the notes would be enriched with the researcher's own recollection of each interview and other observations during the day.

Interviewing through the use of a questionnaire, lasted for 15-20 minutes per

respondent. Any member of the sampled household who was older than 18 years, and was present at home, would be the respondent for the questionnaire. In both methods of observation, interviews had to be prearranged for times that were convenient for respondents.

4.10 Analysis of qualitative data

An iterative and detailed process of analysis involving a number of techniques was used in relation to qualitative data. Two main approaches were used; one involving convergence, or agreement of respondents' issues and concerns, after Guba and Lincoln (1983), and the other dwelt on the emergence of themes out of the categories of agreement.

A number of steps were taken before the major themes emerged from the analysis. Initially field notes and observations were systematically categorized into issues and problems raised by respondents. These categories were then prioritized according to respondents' emphases of those that concerned them most. The final step involved the checking of these categories for completeness. This was done to ensure that they were credible, that is, whether the categories still reflected the issues and concerns of respondents after the initial analysis. This was facilitated through the continued reference to field notes from which quotations were taken. Once the categories of convergence/agreement had been determined, the main themes became easier to identify which later formed the basis of presenting the study results, (see chapter five). Some categories of data diverged from the issues and concerns that were organised on the basis

of convergence, these were retained as separate themes. These were also presented under their own separate headings.

4.11 Analysis of quantitative data

The SPSS for Windows package was used for data analysis. Of the 131 households that were sampled and provided responses in the questionnaire, 127 provided valid observations that were used in data analysis. From the set of questions that were in the instrument, there were 87 variables that were listed but only those that complemented the themes from qualitative analysis were used in the statistical analyses. Variables focusing on ethnicity (refer to Appendix One), had to be receded and the variable labels changed. These changes were done after data collection because it would have been offensive to have asked about ethnicity directly.

In order to present the descriptive statistics of the study, frequencies were run for each of the variables across all the respondents. In order to determine the associations/relationships between certain major independent variables like "ethnicity", "distance from the forest" and "displacement" and dependent variables, cross-tabulations, using the Chi-square statistic, were run. A significance level of 0.05 was used. Such analysis was done to establish groups that were more likely to have been adversely affected by current policies of the FC as well as use forest resources more.

4.12 Role of researcher

The researcher was the primary and sole investigator for the duration of the study.

However, one research assistant for note-taking during community discussions and interviews was hired, for the duration of the case study component of the research. The research assistant was trained in basic research techniques before being hired. Given the time constraint towards the end of the researcher's engagement in the field, the execution of the survey necessarily required more than one research assistant. As such, seven research assistants were hired, including the one engaged for most of the study, for each of the seven villages in the VIDCO. The research assistants were trained for five days before they collected data using the questionnaire.

4.13 Ethical considerations

Although the study area has three distinct ethnic groups, with different languages, all of them could speak Shona which is the researcher's first language, making it easy to have direct communication with respondents. Assurances were given to respondents about maintaining confidentiality about their individual identities in the analysis and presentation of the study results. Assurance was also sought and gained from the Forestry Commission about communities not being adversely affected as a result of the study. In fact, plans were under way to improve the current relationships between the two sides and allow communities greater access to forest resources under the auspices of the resource sharing project.

Chapter five

STUDY FINDINGS

In this chapter, the results of the study are presented. The chapter places emphasis on displaced people's livelihood strategies derived from the forest in the light of their historical associations with the forest. Emphasis is also placed on these people as entry into the issues affecting the neighbouring communities of Chomusonde was gained through displaced people, as explained in the previous chapter. The proposition, as argued in chapter three, was that they would be the most affected by the current exclusionary practices of the FC, since they would have a longer history of forest dependency for their livelihood. Part of this emphasis also arises from the fact that all previous research around Mafungautsi [Matzke (1993); Vermeulen (1994); and FES (1993] had not focused on the problems of this group of people since their displacement. The themes and issues that are presented in this chapter are derived primarily from the qualitative analysis. The same issues were measured in the survey of the rest of the community. The results of the survey are also presented to complement the findings from the case study approach. The results are presented in a format that follows the same pattern of prioritization by the local people. Thus displaced people's life histories are presented first to provide a backdrop to the problems that local people face at present. The other reason, for presenting these results first, is because forest use and perceptions are partially shaped and influenced by this history. Thereafter, land, grazing patterns, forest product collection, the FPU and social issues are presented in turn. Each of the

themes is backed by evidence from both types of investigation.

5.1 Displaced people's life histories

Nearly all the 47, or 91.5 per cent, displaced households that were interviewed are of the Shangwe ethnic group. The Shangwe are said to be the original settlers of the Mafungautsi Plateau of Gokwe Communal Lands (Beach, 1980). Around the 1940s, most of the displaced people or their parents were living at a place near Raji. However, because the area was designated a commercial farm by the government at the time, they had to move into what is now Mafungautsi forest land. The area from which they came is now small-scale commercial farm-land. This group of people that were moved from the area around Raji joined other people who were already living in the forest around Bandakamwe. This is the area around the headwaters of the Rutope river on the eastern part of the forest. Around 1954, the forest was bought, in local people's perception, or taken over by the FC. In the early years of this take over there were no marked changes to the resident population's lives. The FC merely took over the control of the land. It was not until 1963 that the impact of the FC's occupancy began to take effect. In that year, forest inhabitants were moved from the Bandakamwe area of the forest where they had lived all their lives and their ancestral burial grounds had to be abandoned. The western part of the forest, west of the so-called Shu-Shine road, (the road to Bulawayo/Nkayi on the study area map, chapter four), had been designated by the FC as suitable for settlement. The area they came to settle is referred to as Zanda. It could not be established whether there were already some people living in this western half of the

forest around Zanda. Despite this movement from their original homelands, the local people, living inside the forest, still retained their autonomous way of life, as if they did not live under a tenant system to the FC.

It was not until the 1970s that the FC began to issue some rules and regulations to the resident population. The most commonly remembered pertains to the prohibited cutting of specific tree species. These were, mubvamaropa (*Pterocarpus angolensis*), mukusi (*Baikiaea plurijuga*), mukamba (*Afzelia quanzensis*), musenya (*Erythrophleum africanum*), and mugaranyezhe (*Albizia versicolor*). People were also prohibited from cutting very large mitondo (*Brachystegia spiciformis*) trees, but the ones most frequently remembered by all are the first two. Whereas timber cutting was sanctioned, livestock grazing was not. Livestock were allowed to roam freely without being herded, especially to the south of the Rutope river, only to be collected for penning in the evening. Permits were issued by forestry officials for cutting timber and thatching grass. One had to indicate the end-use of the products as well as the amount of time it would take them to accomplish the collection of that product. Hunting of big game like buffalo, eland and kudu, was also prohibited. People continued to hunt the smaller game like warthogs and buck. All other forest product collection was not controlled.

Forest inhabitants had their own social structures that were responsible for the allocation of land for farming and settlement, for settling disputes and for the performance of religious rituals and ceremonies. The local structures for forest inhabitants still reported or fell under the authority of Chief Ndhladhlambi, who resided, and still resides, outside the forest area. Thus they had their own villages that were headed by *sabhukus*.

Within the village leadership, were elders who led the people in performance of religious rituals on certain pools along the Rutope river which ensured the continuous flow of water within the river. Similar rites were also performed before each harvest to thank the ancestors which ensured that their harvests would always be adequate. Some of these rituals and ceremonies are no longer performed and displaced people blame most of the problems they face on "losing touch with their ancestral world" (see section 5.6.2 for the reasons). Displaced people also argue that Rutope river no longer flows because nobody is responsible for the performance of the rituals necessary to keep the water flowing.

During the early years of the FC's take-over of MFA, the relations with the inhabitants were very cordial. If ever there was a fire outbreak in the forest, tenants within the forest would be mobilised to assist in putting the fire out without being paid for the work. In fact, the forest ranger for MFA at the time was nick-named "Madzimamoto" ("put out fire") because he went about 'preaching' against causing fire outbreaks in the forest. The majority of the workers employed within the forest had been recruited from among tenant families. At the present time most of the workers in MFA are drawn from families that used to live in the forest. During the same period, many villagers would reprimand any person found causing fire as this would lead to the invasion of a noxious weed they call *mukauzani*. The weed causes death to any cattle that browse it.

With the attainment of independence in 1980, given the withdrawal of FC employees from MFA during the peak of the liberation war in the 1970s, there was a huge influx of people into the forest in search of settlement and arable land. A few

families took the opportunity to return to Bandakamwe where they had been removed from in the 1960s. These take-overs by local people had been premised on the war having been fought to regain access to land local people possessed before colonization. Thus people felt it was legitimate for them to return to their original lands or to lands that had been taken over under the colonial government. It was easier to do this in Mafungautsi than on neighbouring commercial farms as there was no visible owner of the forest at the time. The end of the war also marked the return of FC personnel to MFA. The return was marked by the eviction, in 1981, of all those people who had moved into the forest at independence in 1980, as well as those who had returned to their original homelands on the eastern part of the forest. Even with the eviction of their comrades from the forest, the inhabitants who remained in the forest still enjoyed cordial relations with the FC. The permit system of the 1970s continued to be used, more were engaged by the FC in its operations and other villagers continued to cooperate in the event of the outbreak of fires.

With the outbreak of dissident activities around 1983, the relations between the FC and forest dwellers took a new turn. Initially inhabitants supported dissidents clandestinely without any adverse effect to the FC. However, towards the end of 1985, some inhabitants became agitated by the continued ownership of MFA by the FC at the instigation of the dissidents, to whom some respondents referred to as "liberators", given the government's failure to redress the land ownership problem within the forest. Thus, towards the end of 1985, the FC's camp and various other equipment including a tractor at Lutope were set on fire. At the same time government soldiers were having difficulty

in apprehending their adversaries, that is, the dissidents, from communal areas surrounding the forest. This was because the dissidents were being given shelter by people living within the forest, which made it difficult for soldiers to find them. It is alleged that the councillor of Ndhladhlambi Ward I at the time, around 1985/86, reported the fact that people living within the forest were providing shelter to dissidents to the District Administrator at Gokwe. Administratively forest inhabitants at Zanda fell under the councillor of Ndhladhlambi Ward I. The District Administrator then informed the head of the army operations in Gokwe about the tenuous situation of forest inhabitants. The Administrator and the army head then addressed the inhabitants about their pending removal from the forest within a three month period. The notice was given between March and April of 1986. Some ex-Zanda inhabitants allege that even before the notice period had elapsed, the army head returned to give them a three-week notice to vacate their homes in the forest. Since it was the harvesting period of the year, most people assumed that they would at least be allowed to harvest their produce from their fields before leaving the forest. While the inhabitants were still arranging for their movement from the forest, the soldiers returned. This was in late May 1986. The soldiers were setting on fire every structure that belonged to forest dwellers. An old man who was a *sabhuku* at Zanda related the ordeal they went through as follows:

> I was lucky to have a son who was employed at the time, because I told him a week before the soldiers came back. All the same by the time he came home the soldiers were already setting alight other people's homes. Before we could load all our belongings onto the truck my son had hired, the soldiers had already set alight the temporary grain storage. I lost five scotch-carts of maize. The twenty pigeons were all burnt in their pen before we could free them. Our chickens were burnt in the same manner. The whole village had terrible smoke and smells of burnt clothes and

> animals. We were hurrying to get as many of our belongings into the nearby forest as we could before they caught fire. We managed to load the belongings we had salvaged on to the truck before setting off to where we are now. I had talked to the headman the week before. When we got here (outside the forest in Chomusonde where they live now) we had to build as quickly as we could in order to have some shelter. Most of our kin decided to move as far away from the forest as Madzivazvido and Simchembo.

At this time people lost their pigs in the forest. This makes them feel they have the right to hunt them anytime as they cross-bred with the wild warthogs. Many more lost their crops to the fire. Not many people were as lucky as the old *sabhuku* mentioned above to have had access to transport. The majority of people used scotch carts and their heads to transport the few belongings they could salvage. Because they are related to those who lived around the forest, through ethnicity, they managed to be accommodated within villages adjacent to the forest.

Most of the people who had access to trucks decided to relocate as far away from the forest as Chireya and Simchembo, to the west and north of Gokwe centre. Thus a once thriving social entity was dispersed all across Gokwe Communal Lands. When the hostilities between the two parties that were at war ended in 1987, most displaced people were anxious to return to Zanda but they were never invited back and were afraid to take their own initiative as some of them had been evicted several times before. Thus today they live on the fringes of their former forest homeland and are facing a number of problems with their host communities which are presented under the themes below.

5.2 Land issues

Land is the greatest problem and source of other problems for all former inhabitants of the forest. Former forest inhabitants settled in a community where land resources were at optimum levels of adequacy for its existing members. Only three households out of the 47 displaced households that were interviewed had adequate land to meet their needs. The rest of the displaced people barely have enough land for their subsistence.

5.2.1 Land availability

Nearly all displaced people are in a situation in which they have inadequate farming land. Many of the displaced people have the use of a few acres of land that they borrowed from their relatives. Others were loaned some acreage that was too far away from where they live, consequently they do not farm these lands. Alternatively they just lived-off the homefield[14] only or they were allocated some very old fields that were disused by the original owners. When they first arrived in Chomusonde VIDCO, their hosts thought they were only accommodating them for a short period until the war was over and could afford to loan some of their arable fields to enable them to feed themselves. There were many disputes reported in relation to those who lent their fields to displaced people when they asked for their return. When the chief and *masabhuku* tried these disputes they often ruled in favour of displaced people as the latter needed to survive. Relatives who loaned their fields often demand them back when they need to expand their production levels. Because of these ensuing disputes, members of the wider

[14]Homefield is land that it is in proximity to the homestead and is usually only an acre in size.

community in which displaced inhabitants live no longer lend their fields to those who have inadequate land even when they could afford to. Borrowed fields also do not bestow secure tenure for displaced people as they remain uncertain of their circumstances.

Another related situation is when those displaced only have a few acres to subsist on. Possession of a few acres results from their late arrival into the community. By the mid-1980s, village leaders around Chomusonde were getting to the end of their capacity to accommodate new comers. Thus they only allocated as little as four acres of land where people who arrived earlier had been allocated at least ten acres. As will be discussed later, a few acres usually do not suffice to meet the needs of even a small household given the inherent problems of managing Kalahari soil types.

Yet another land issue results from late comers being lent land that was too far away from the village in which they lived. In some cases the distances would be as far as seven kilometres. Although such land might have been productive enough to meet the needs of new immigrant families, the distances involved would be too prohibitive for them to accept such land. When they were probed about why they did not transfer to villages where they could get land, they reflected that the leaders in those villagers were claiming not to have the places for them to settle and build their homes. Such leaders did not want to *kuminyana*, that is they were not prepared to have a crowded settlement in their village. On the other hand, the *sabhukus* who were prepared to accommodate displaced people were usually not in a position to offer them arable land as they would have run out of it in their villages. Such is the case with one village that is close to the forest, which has the largest number of former forest inhabitants and the largest total

population. In some cases the leaders who had land to spare were holding it for the future of their younger generations. This land problem resembles the one of being offered land that is too far to work on in the sense that displaced people have access to adequate land, but are unable to derive maximum benefit from it. This is a result of having been allocated very old fields from which they are unable to harvest enough to feed themselves.

Finally, those who appeared the poorest among Chomusonde community members were the unmarried men and young couples, most of them were below the age of twenty-five, and very few more mature couples that had just moved into the area in the recent past. In the case of displaced people, such people would have originally settled somewhere else, usually much further than the forest boundary, and encountered social relation problems in the host community. These problems would have compelled them to return to communities living closer to the forest where they are closely related to residents. All these groups of people were barely subsisting on just their homefield. Homefields were hardly more than two acres and would not suffice to feed these households. The mature couples who fell in this group usually were fortunate enough to own sufficient cattle they could sell in order to obtain income to buy food for their households.

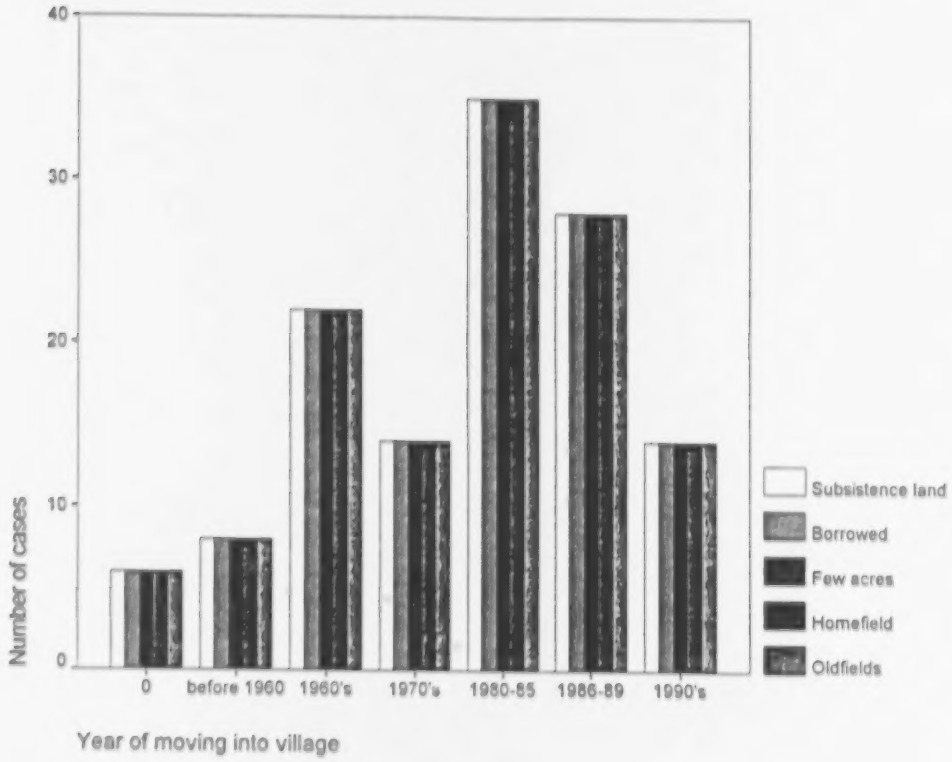
For the most part, this group comprised people who had to engage in many off-farm activities in order to be able to meet their needs. Some of them were blacksmiths making buckets, others were fishermen, while others brewed beer to such an extent their homes resembled beerhalls. A few of the households in this group either sold their labour to richer farmers or they could sell their draught power in exchange for a portion of the

harvest. The figures obtained from the survey also support these findings about the land problems in the VIDCO. In the analysis of the survey results, data from both displaced and non-displaced people was combined. This was done after preliminary anlysis of the two data sets indicated there were significant differences between the two groups of people. Table 2. shows selected characteristics of the respondents. Respondents were asked whether they had enough land to meet their household subsistent needs. As many as 42.5 per cent reported that they did not have enough land. Of those reporting that they did not have enough land, 21 per cent had borrowed the fields that they cultivated, nearly 30 per cent survived off only a few acres, as much as 19 per cent worked on homefield only and 27.7 per cent had old arable fields. The overall picture is that as many as 28 per cent of the sample population barely produced enough food from their fields to meet the needs of their families as a result of the nature of their holdings. These findings are presented in Figure 5. In the figure, "subsistence land" represents the number of respondents who said they did not have enough land for subsistence. "Borrowed" represents those respondents who had borrowed fields. "Few acres" represents respondents with only a few acres for their subsistence. Respectively "homefield" and "oldfields" represent respondents who had that type of land, as documented above.

Table 2. Selected characteristics of the respondents

		freq.	%
Age	< 19	3	2.4
	20-29	26	20.5
	30-39	36	28.3
	40-49	28	22.0
	50-59	19	15.0
	> 60	14	11.0
Displace	non-displaced	81	63.8
	displaced	46	36.2
Distance	close to forest (< 2km)	77	60.6
	across river (2-3km)	35	27.6
	close to main road (> 3km)	15	11.8
Land subsistence	yes have enough land	73	57.5
	no have enough land	54	42.5
Ethnicity	Shangwe	68	53.5
	Ndebele	16	12.6
	Shona	43	33.9
Ranking of land	rank 1	56	44.1
	rank 2	33	26.0
	rank 3	13	10.2
	rank 4	10	7.9
	rank 6	2	1.6
	rank 0	7	5.5
Ranking of grazing	rank 1	33	26.0
	rank 2	51	40.2
	rank 3	13	10.2
	rank 4	15	11.8
	rank 5	3	2.4
	rank 0	5	3.9
Ranking of timber	rank 1	20	15.7
	rank 2	27	21.3
	rank 3	42	33.1
	rank 4	12	9.4
	rank 5	10	7.9

Figure 5. The frequency of respondents with inadequate land.



5.2.2 Land management strategies

It is important to point out that the sandy nature of the Kalahari soils around Chomusonde VIDCO makes the management strategies for the more fertile soils inappropriate. Such strategies include the adding of manure from cattle pens and applying fertiliser. Application of these nutrients is argued by local people to be pointless as they are leached by the first drops of rain and thereafter the farmer has to apply manure and fertiliser every year. Doing so would be very expensive. The local extension officer for the VIDCO in fact confirmed that when local people were issued with the free fertiliser that was offered by the government, they sold it to farmers in other areas who had fields with clay soils.

Local people employ a rotational fallow system as a land management strategy. Fields are usually one large tract of land cultivated on a rotational basis. Depending on the size of the land that a person might have, it is not unusual for the portion of the field that was cultivated in one season to be returned to after two or three seasons. This rotational fallow system is used to manage weeds and soil fertility. People with rich clay soils do not use this management strategy and they were very few in this VIDCO. Portions of fields are also left fallow in order to contain the problem of nutrient leaching from continuous cultivation every season. Another management strategy that is employed in the area is the leaving of many trees within the arable lands. In fact when one drives through the area it would be very difficult to distinguish between woodland and arable land were it not for the crops in between the trees. What was most unique about this practice was the fact that the trees were not just the usual fruit trees or sacred species, as

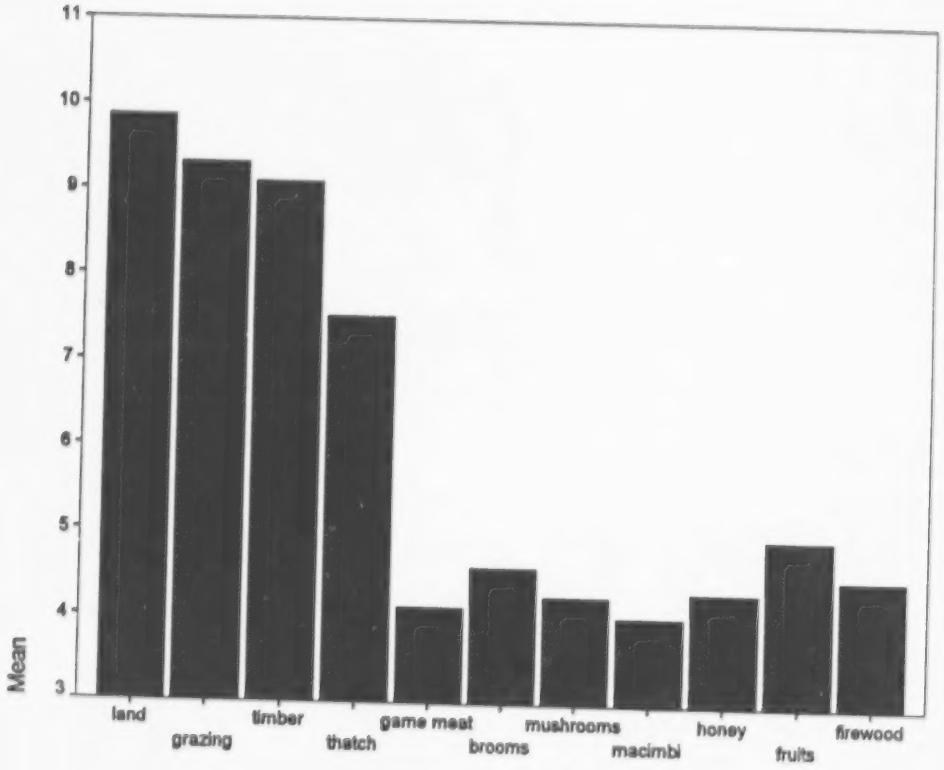
described in Wilson (1989). The most common trees in their fields were *Brachystegias*. Trees were not only retained for the production of leaf-litter to add to soil fertility, but also as soil conservation strategy given the vulnerability of Kalahari Sands to erosion.

5.2.3 Perceptions of use of forest land/products

Respondents were asked to rank the uses and products they valued from Mafungautsi Forest. In all there were eleven options illustrated on cards which they were asked to rank in descending order of importance. The values were drawn from the most consistently reported as important to respondents during in-depth interviews. As many as 75 per cent of the respondents ranked land between one and two. Of these respondents, as many as 44 per cent ranked land as the number one and most important value of the forest. Figure 6. illustrates the value of land to respondents in comparison to other uses of the forest.

The survey showed that even those that were neither of Shangwe ethnicity nor displaced from the forest nor had land problems also reported the desire to settle and farm in the forest. As many as 62.2 per cent said they would prefer to settle in the forest, in comparison to 26.8 per cent who would not, while 63 per cent said they would like to farm in the forest as opposed to 26 per cent who would not. As described in the preceding chapter, the researcher attended one of the Ward workshops run by FC officers involved in implementing the resource sharing scheme. At that workshop, communities were making land demands to the FC. The issue was pursued in the survey in which the results show that 69.3 per cent of the respondents supported the idea that the FC should give up parts of the forest land to its neighbours.

Figure 6. Respondents' ranking of 11 uses of the forest.



Cross-tabulations were run to measure the correlation between ethnicity and these land perceptions. The results indicate that respondents of Shangwe ethnicity and displaced people were significantly (at 95 per cent confidence level) more supportive of the idea of the FC giving up parts of the forest land to neighbours. There were 86.7 per cent of Shangwe respondents who said yes to this issue compared to 55 per cent for the Shona. At the same time, what was noteworthy was that 62.2 per cent of the respondents did not support the idea of the FC giving up the whole forest to surrounding communities. Obviously these results have important implications for management strategies which are discussed in the next chapter.

5.3 Livestock and grazing issues

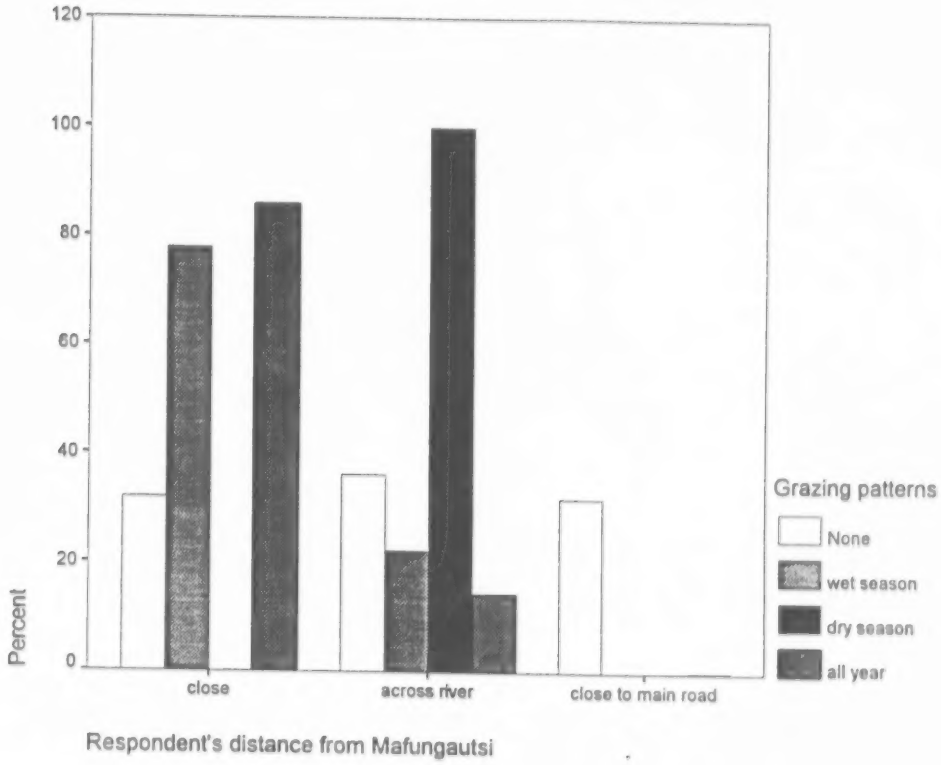
Livestock ownership and grazing issues were not explored at the same depth in this study as other issues because these had already been investigated extensively through the studies by Matzke (1993) and FES (1993). However, there are a number of findings that were documented during the course of the study that are presented here.

Before 1986, most forest dwellers did not herd their cattle as they could graze on their own across the Rutope river on the southern part of the forest without the fear of them getting stolen. The cattle would only be collected for penning in the evening. However, since their eviction from the forest, livestock theft has increased to such an extent that people no longer allow their cattle to graze in the forest without any herders. Cattle rustling has increased with the rise of lucrative cattle markets in the district as a whole.

Villagers living closest to the forest are the ones who graze their livestock in the forest throughout the year, while those furthest away from it hardly ever take their livestock to the forest. Even during the drought of 1991-92, there was still adequate grazing from their local sources. Those who live in the area between these two groups of people, just across Mbumbusi river, sometimes graze their livestock in the forest. This is done during the late dry season. Chi-square tests show significantly different grazing patterns. As many as 77.5 per cent of the respondents living closest to the forest (distance of less than two kilometres) graze their livestock in the forest while only 22.5 per cent of those living just across the river (2-3 kilometres) do the same. There was no one close to the main road, that is furthest from the forest (beyond 3 kilometres), who took their livestock to the forest for grazing. These results are illustrated in Figure 7 in which the bars represent seasonal grazing percentages.

The following reasons were put forward by respondents to explain why those respondents living close to the main road did not take their livestock to the forest. The main reason was the availability of high quality grasses from the communal spaces, on the northern half of the study area. These spaces are found between people's fields and their homesteads. Such spaces were adequate to meet the grazing needs of this category of non-forest users. This group of people could unpen their cattle as late as eleven in the morning because the few hours that they were allowed to graze were sufficient.

Figure 7. Respondents' livestock grazing patterns within the forest



Another factor was the distance involved in taking the livestock to and from MFA everyday, especially since the Rutope river has no water for them. The herders would have to take the livestock to the forest for grazing and bring them to Mbumbusi for watering and return to the forest again before finally returning home in the evening. Associated with this distance issue was the fear of their stock being stolen in the forest. Most of those further away from the forest were not prepared to take this risk.

5.4 Forest product collection

5.4.1 Timber products

Displaced people had been forest dwellers for most of their lives, consequently they had come to be dependent on the forest for their livelihood. Whereas forest use has become more negatively sanctioned since 1986, they still continue to depend on forest resources and products as if they still lived within the forest. The survey results show that 74.4 per cent of displaced respondents used resources from the forest as compared to 58.8 per cent of those from the rest of the community. After land, the next biggest cause of conflict between the FC and local people is timber for construction (see the ranking of forest uses/values in relation to timber in Figure 6). People continue to depend on timber from the forest for their construction needs. These needs range from simple structures like a plate-drying rack, to more complex structures like houses and granaries. As in the case of grazing, those living further away from the forest rely less on it for their timber needs. Chi-square tests of the relationship between distance and forest use show significant patterns. Forest use was reported at 81.8 per cent for those respondents living

closest to the forest in comparison to 51.6 per cent of those living just across Mbumbusi river and non-use for those living furthest away from the forest (approximately 5 kilometres and beyond). Those people who use timber from the forest do so opportunistically, during the season that they need the timber. Timber cutting is most prevalent between mid-March and May when people will be building their granaries for the in-coming harvest.

When local people cut timber from the forest, somebody has to make sure that the members of the FPU are nowhere near the area where they are going to be cutting. Once it is safe to do so, they then cut and leave the timber on a location that is accessible to scotch-carts, but they ensure that the timber is not visible to anybody else. They then go back to the village to collect a scotch-cart and another person to help with the loading of the poles. This activity is done by men and is usually done early in the morning to allow the marks created by scotch-carts to be erased by cattle being driven into the forest for grazing later in the morning. This is done to ensure that the "tree police" will not be able to trace them to their homes. Because timber cutting in the forest is a prohibited activity, most people involved in the activity now even cut larger sizes of poles that they would not normally use for their construction needs. This is done to hurt the FC:

> Given the fact that the Forestry Commission no longer issues permits to allow us to cut poles from the forest, we now cut some poles that we would not normally use. For example, you now see people renewing their *ngarani* (maize drying/storage structure) every year when the poles can last for up to five years.[15]

[15] This was said by a displaced person who is now in the VIDCO leadership.

5.4.2 Grasses

When displaced people were still residing within Mafungautsi forest, getting access to thatching grass was much easier as they were only required to notify their intention to cut it to a forestry official. In order to obtain the same grass since their eviction, they not only have to obtain a permit from Lutope Camp, which is at least six kilometres away, but they also have to pay for each bundle of grass they cut. It costs them up to Z$5,00 per bundle or alternatively for every five bundles they cut from the forest, two are paid to the FC. As a result of these costs, very few people are still obtaining thatching grass from the Rutope river valley within the forest. Instead people are having to rely on an inferior poor quality grass that they cut from the Mbumbusi River. This poorer grass has to be replenished every year as the roofs begin to leak thereafter.

Related to thatching grass is the collection of sweeping broom grass from the same Rutope riverine area. Most women are no longer prepared to walk the long distance to seek permission and to harvest this product. Collection is currently carried out at opportune times such as when somebody is visiting relatives on the south side of the forest and they have to cross the Rutope river. Because there are no alternative sources of brooms in the local environment, people still depend on the forest for their needs. Sometimes they rely on the herd-boys/men to collect grass for the brooms on their behalf.

5.4.3 Other products

There are a number of other products that people depend on that are available from the forest. People are being denied access to such products and are still prosecuted if found collecting them, even with the onset of the proposed resource sharing scheme. During the rainy period from January to March, mushrooms become available from the

forest but a lot of people were complaining about fear of being prosecuted if found picking this product. However, as one elderly woman asserted, "They can ask for a fine from me but I don't have the money while at the same time I need the mushrooms for relish. I am too old to run away from the police but I will not stop looking for mushrooms". There were a number of people who reported that they had been forced to leave their mushrooms in the forest as these were not to be collected under the forestry regulations. "The tree police told us that mushrooms are supposed to be manure for the trees that is why they emptied the contents (mushrooms) of our baskets on the ground. This was despite our appeals that we had nothing to cook as relish at our homes"[16]. There were many encounters of this nature that were either witnessed or reported during the period that the research was undertaken. When a group discussion was held with members of the forest protection unit (tree police to local people), they denied that they had harassed people for collecting mushrooms as they were humane enough to know that people depended on them for their survival needs. At the same time they referred to the provisions of the Forest Act under which it was strictly illegal to collect anything from a gazetted forest unless this was done with the consent of a forestry official.

Macimbi (edible tree caterpillars) were the next forest product that caused a lot of agitation especially to displaced people. Prior to their eviction from the forest, they never had to seek permission to collect this protein source. What aggravated the people most was the fact that "even under the spirit of seeking good relations from neighbours, the Forestry Commission people refused to allow us access to even *madora* (another name

[16] A recollection from an elderly woman's encounter with "tree police" when she was found with a basket full of mushrooms.

for the same caterpillars)". The argument that they received from the FC was that they would be felling trees in order to obtain this product. Most people made the point that it was only in the recent period that a few angry individuals resorted to felling trees in order to obtain catepillars. These individuals argue that they harvest *macimbi* in this manner because the activity is criminalized in any case such that if "they hurt the FC in the process they feel better". On the other hand a lot of people demonstrated a local practice that is used, and has been used for many generations before, in order to "harvest" *macimbi*. This technique involves the digging of a small trench, only a few centimetres deep, around the base of the particular tree species that the *macimbi* occur. When the catepillars fall to the ground or descend from the tree, they fail to get out of the trench. People then come and pick up the catepillars for consumption.

Another product that sometimes involves the felling of trees in the process of collection is honey. Honey was mostly consumed within the harvesting households or sold elsewhere. There were very few households that were engaged in the sale of honey. In most cases it was collected for domestic consumption. The harvesting activity was done primarily between the months of March and June as well as September and November. Whereas some honey was collected from cavities within tree trunks, there was also some that was harvested from cavities underground. Both activities were prohibited by the FC. The former for either damaging trees or felling them altogether, while the latter was mostly for creating trenches from which gullies could develop. In both cases, the harvesting could lead to the development of forest fires because smoke is used in the honey collection process. A detailed discussion with one youth who collected

honey on a weekly basis revealed that the young men always had to put out fire whose smoke was used to dowse the bees. The fire would be lit for the smallest amount of time because the smoke would invite the tree police to the scene. Asked about the fact that some forest fires had allegedly (by forestry workers) been caused by honey collectors, most of those involved in the activity said it was only "a few individuals who tainted their activity". Since, as documented earlier, forest fires lead to the growth of a noxious weed which is very harmful to cattle, wherever possible people try to prevent fire.

A diverse range of fruits are available from the forest although people say they are arrested for collecting. Despite the high risk of facing prosecution, many households are still involved in fruit collection. These fruits are mostly available during the dry season when the range of foods in most homes becomes very limited. Thus fruits become an important source of nutritional supplement for families during this season. Some women also sell some of the fruits to those who live across the river further away from the forest. Therefore fruits also become an important source of income for women who may not have access to income derived from the sale of cash crops during that time of the year. In order to cross-check this issue, the FPU was then interviewed about the problems local women encounter while trying to collect fruits from the forest. Members of the protection unit denied prosecuting anyone for collecting fruits from the forest.

One activity that could be described as "daring" is the hunting of wildlife within the forest. Whereas displaced and other people from the wider community sometimes engage in hunting in the forest, the FPU is most keen to prosecute those involved in this activity. That is, the unit is most anxious to make arrests of people who hunt in the

forest. The range and diversity of hunting methods that a few local men use would almost imply that the forest had unsanctioned access. Although many more men who grew up in the forest used to hunt for even big game at regular times of the year, most of them have now stopped for fear of the huge fines that they pay at Gokwe Police Station if they are caught by the FC. Some have also stopped this activity due to the long distances involved[17]. As such, regular and more intensive hunting is done by only a few men, some of whom almost depend on this activity for their livelihood. The few who hunt sell to the rest of the community. However, many men who herd livestock in the forest set up snares for small game. Some also kill small animals like buck and hares when they encounter them while herding their livestock in the forest. Those who hunt in this manner usually do so for their own household consumption, while those who are more professional hunters sell their catch to the rest of the community. The latter are only a few and are widely known within the whole VIDCO. Such hunters are the ones who even set up *mambure* (nets made out of rope for trapping animals) within the forest and can spend several weeks away at a time. When they eventually leave the forest the game meat will have been dried and will be ready for sale to the rest of the community. The prices ranged from Z$5,00 for a small hare, to as much as Z$50,00 for the larger kudu. The meat can be traded for grain in which case the price for meat appears to gain a greater value than the cash equivalent. Information about hunting methods was very difficult to access, as noted in the preceding chapter, as people were afraid that it would be passed on to the tree police. Displaced people no longer subsist on as much game

[17] Wildlife, i.e. game, is most abundant on the south eastern portion of the forest which would be at least 8 kilometres away from the study area.

meat as they used to when they lived at Zanda. They now depend more on their domestic animals for their meat needs.

The results of the survey indicate that 64.2 per cent of the respondents said yes to whether they used resources from MFA. Of those that said yes to using resources from the forest, 45.6 per cent said they cut timber during the wet season using it as described above. Only 26.3 per cent said they cut timber throughout the year. As presented in Figure 6, under the land section, timber was the third most important value of the forest after land and grazing. Thus, timber was ranked the most important use of the forest by only 16.8 per cent of the respondents compared to 44 and 27 per cent for land and grazing, respectively. Thatching grass was ranked fourth, with fruits, brooms, firewood, mushrooms and honey, game meat and *macimbi*, following in order of importance, respectively. It is interesting to note that only 8.7 per cent of the respondents said they hunted in the forest, that is, within the group that uses the forest. The forest use ranks are presented in Figure 6.

5.5 The Forest Protection Unit (FPU)

The FPU falls under a section of the Indigenous Resources Division[18] of the FC that is responsible for forest protection activities. The section under which the FPU lies, has its headquarters in Hwange, more than 200 km away from MFA. The unit only has six people and they would like a personnel complement of around twenty to be more effective.

[18] This division is responsible for the management of all state or reserved forests in the western half of Zimbabwe. MFA, however, was transferred to the Extension Division of the FC two years ago.

The FPU pointed out that they could never possibly cope with their policing activities. However, they admitted that no matter how many people were employed to police the activities of neighbouring communities, people would still get in the forest to get whatever products they wanted. This is because people tend to develop ingenious means to gain access into the forest each time the unit develops new strategies to catch them. They gave an example of a group of women who were pretending to be weeping when they came across them in the forest. When they asked them why they were weeping they claimed to be going to a funeral. However, after walking a short distance from them, they were surprised to hear the same women laughing. Eventually, they found out that the women had been so scared of the FPU that they feigned going to a funeral to escape being prosecuted for collecting the clay soil[19] they were hiding in bushes nearby. Because of the clever tactics they have witnessed, the FPU now employs a policy of stopping and searching nearly everyone they meet in the forest.

One of the major reasons why the unit fails to be as effective as it could be is because of the conditions under which they operate. They do not have a vehicle. They walk very long distances, considering the size of the forest at 82,000 hectares. Because of the long distances they have to walk, they have to camp in an area of the forest they will be policing for that specific period. Usually the period extends for about three weeks. During the period they are in camp, they operate like a guerilla army in order to be effective. Despite cold winter nights, they have to put out their fires in order to be less detectable to poachers. Sometimes their effectiveness is limited by lack of adequate

[19] A particular type of clay soil that is favoured for painting walls is found in the forest, but the FPU said collecting it is prohibited.

food and water supplies, in which case their mission is ended prematurely. This is a result of their being under a section of a different division from the one that manages MFA. The FPU reports to this section through the Gokwe FES office which is 30 kilometres away from Rutope camp where the unit is based.

When the FPU gets to one part of the forest where they intend to police local activities, they sometimes have to blend into the local community. One of their members usually joins a beer gathering and scouts for potential informants. They usually have a number of paid informants all around the forest. It is from these informants that they usually trace the movements and activities, especially of hunters. There are a number of instances when they would have failed to apprehend poachers who would have been very close to where they would be camping, had it not been for their local informants. It is also from such long distances that the unit has to walk with the poachers they apprehend. In some cases, the unit has to carry the evidence for poachers' illegal activities with them which can be up to 50 kilograms of game meat. If the poacher was hunting game, it usually provides an incentive for the unit as they take the meat for their own consumption. The head and legs of the slaughtered animal are then used as evidence when they bring up charges against the poacher to the Gokwe police station. Sometimes they go on a house to house search of all homesteads adjacent to a particular section of the forest in which hunting recently took place. Under these searches, it is not unusual to find many kilograms of meat hidden in granaries. All cases have to be processed within twenty-four hours of catching the offender and they have to rely on the cooperation they receive from the officer in charge of MFA, otherwise they have to use bus transport

to get to Gokwe. The apprehension and prosecution of offenders is hampered by the lack of communication equipment like radios, which other FPUs in Matebeleland have.

When the FPU was first introduced to MFA between 1989 and 1990, they held meetings with all communities living adjacent to MFA to introduce their policing activities. They informed the communities about all the products they were prohibited from collecting from the forest and those they needed permits for. The FPU confirmed and concurred with most of the prohibitions that local people had mentioned. They pointed out that until 1990, any dogs they came across in the forest they were shot as they were used for hunting wildlife in the forest. Since then, they no longer shoot any dogs they come across. Instead the owner is either warned against having dogs within the forest or they are fined as it is illegal for dogs to enter the forest under the Forest Act. What action to take depends on the FPU on the day. They also confirmed the prohibition of women from collecting clay soil from the Rutope valley for plastering and painting their houses. Collection of such soil is said to lead to the creation of gullies which would affect the flow of the Rutope river. That in turn would damage the watershed environment which the forest is supposed to protect. The FPU also said that they prohibit the collection of honey as this leads to cutting of many trees as well as causing forest fires. If people were allowed to collect honey, they pointed out that it would be very difficult for them to monitor those felling trees or leaving fires burning. Sometimes they turn a blind eye to people collecting mushrooms as they empathize with their subsistence needs. However, they pointed out that if they were to strictly enforce the legal provisions they were taught about the Forest Act, "nobody would even be allowed to pick a stone

from the forest."

The FPU personnel underwent a few months training by the more experienced units based at another forest in Matebeleland. Next they were trained by the Department of National Parks and Wildlife Management (DNPWM) officials on handling poachers and on how to use guns. The FPU carries guns all the time in order to protect themselves against poachers. The guns they use are acquired through the DNPWM. As a result of their training they said that they do not have any problems in bringing up charges against offenders before police officers and eventually the courts. There are certain months of the year when the FPU barely have a break from policing activities of neighbouring communities. These periods usually range from mid-March to around September, with peaks in June and July when neighbouring people are involved in hunting. Dry season hunting is usually accompanied by fire which is used in driving game towards nets set-up to trap them.

On the whole, members of the FPU wished the FC could unsanction the collection of a wide variety of forest products by people living adjacent to MFA. This would make their work easier in the sense that they could focus on major illegal activities like poaching wild animals and felling of specific tree species. Survey results indicate that only 16.5 per cent of those who use the forest had ever encountered tree police while in the forest. This is in contrast to 81.8 per cent of respondents who said that they used forest resources. This means that the majority of forest users never come across the FPU. This is because of the FPU has only a few people in relation to the large size of the forest. The plight of the FPU is such that they could never cope with the task of policing

every inch of the forest even if the activities they would police were reduced. This statement from one of the more experienced members of the FPU sums up the picture: "At the moment people are forced to use some environmentally damaging methods to collect certain products because they feel excluded from the forest and it is difficult to control all of them". In fact during the in-depth interviews with local institutions, a high degree of distaste of current harvesting practices for products like poles used by their fellow villagers was expressed. These same leaders expressed the fact that they would be more effective in monitoring harvesting activities of villagers since they lived among them unlike the FPU. The results of the discussions with local leaders are discussed in more detail in section 5.8.

5.6 Social issues

Displacement has many social consequences both for those who have been displaced and those compelled to accommodate them. Whereas displacement appears to be a temporary feature initially, the newly found homes of refuge become permanent settlements out of lack of choice. The intention in this section is to highlight some of the social effects of forced movement. The entry point to this issue is through the impact of a protected forest. The displacement of forest inhabitants from the Rutope area was obviously an unintended consequence of managing a protected forest. However, there is a widespread perception among both displaced and other local people that the FC appears to have acted in cooperation with the army at the time of the civil strife. Local people argue that this is because the FC has not invited displaced people back into the forest

after the cessation of hostilities between the army and dissidents. As many as 78.7 per cent of the respondents felt that "ex-Lutope residents should be retained in the forest by the FC". This was explained by not only the worsened land problem displaced people cause, but by other factors presented below.

5.6.1 Displaced people as "social misfits"

Although nearly all of the people that were displaced from the forest are related to the *sabhukus*, who are custodians of the land within Chomusonde, they still felt as if they did not belong to the larger community. Displaced people are related to not only the leadership but most members of the Chomusonde community through ethnicity. Yet the larger community treats and views them as "misfits" in terms of their way of life. As a result, a large number of displaced people, especially those clustered in villages closest to the forest, have maintained the same social networks they had at Zanda. It is through such social networks that displaced people retain some distinct features of their own way of life. One of the activities which set the displaced people apart from the wider community was the holding of tea parties. This activity involved the brewing of beer which would then be sold at a big party characterised by many dances to music played from contemporary radios. At such dances, partners mixed freely so that married men and women danced with whoever asked them. To the larger community this practice appears morally decadent. Such parties are alleged to lead to the degeneration of the moral fabric of the wider community. On the other hand, displaced people continue to live their lives as they used to when they lived in the forest. They do not have as many farm related activities as older members of the community because they have smaller fields to

cultivate. Therefore, they have more free time to hold these parties. These different ways of life have caused tension between the two communities.

Another reason for which displaced people are alleged to be social misfits is their children's lower participation in schools. This is particularly true of teenagers who drop-out of higher levels of primary school and do not go for secondary education. The problem is that most displaced people do not have access to as wide sources of income as the rest of the community. In order to send children to school, the parents have to have adequate cash income. Most members of the Chomusonde community sell their farm produce to get enough income to send children to school and meet their other needs. Displaced people's farm produce is barely adequate to meet their survival needs so they never have any surplus for sale. They also lack remittances from outside the community as most of the men never sought employment outside the forest. The FC used to provide employment to many of the men within MFA without the need to receive any education in order to get that employment. Another reason for displaced children's low participation in education is that schools were built in the forest much later than in communal areas surrounding the forest. Thus displaced people had their own way of life that was rooted in self-sufficiency from forest resources so there was little reason for them to send children to school. Displaced people's lives were largely influenced by the fact that they lived within a forest, but at the same time under the control of the FC which they perceived as an estate owner.

5.6.2 Severance of "spiritual" ties

Notwithstanding the fact that ownership rested within the FC, forest inhabitants

retained their own environmental religious practices inside the forest. These practices revolved around the holding of ceremonies and performance of rites at certain sites within the forest at certain times of the year. One of the sites where only a few elders and village heads held these ceremonies was near Bandakamwe on the eastern part of the forest. Although that area of the forest was not normally accessible to tenants, they could still perform their rites within it. Nearly every displaced person that was spoken to argued that the Rutope river no longer flows because their elders no longer perform any ceremonies at designated pools to keep water flowing. They were also amazed that there were so many big pools along the river from which big fish could be caught that had virtually dried up after 1986. All these practices are no longer performed primarily because they are now estranged from the forest in which the sacred sites are located. Discussions of religious practices drew very sad faces from displaced people as they felt they had now lost touch with their ancestral spirits which meant that they were now incomplete beings.

5.6.3 Breakdown of forest dwelling communities

One reason that was advanced to explain why religious rites were no longer performed was the relocation of some of the elders who used to lead them to places like Madzivazvido, Chireya and Simchembo. Associated with the translocation to such distant places is the dispersion of a once thriving community of forest inhabitants. Members of their kin have now been scattered all over Gokwe District and it is now difficult for them to maintain close ties. Among those who were displaced to further places are people who held distinct positions within their society, such as healers (medical practitioners).

Establishing social ties with members of the wider community with whom they now live has been rather difficult especially when displaced people are continuously alleged to be the cause of moral decay and many other social disputes over land and their livestock browsing other people's crops.

5.7 Fear and insecurity towards outsiders

One phenomenon that was consistently prevalent among displaced people and other members of the wider community, was the high degree of fear and mistrust of the FC's personnel and any other outsiders in general. The mistrust and fear emanates from the high level of insecurity towards their tenuous position in relation to the FC and its forest. The current area in which the VIDCO lies was part of MFA until 1972 when it was ceded to Gokwe District Council. This historical fact, in conjunction with all other movements around the early 1950s, relocation in 1963 and the early 1970s, coupled with the forced removal of 1986, has generated a great amount of insecurity within the ethnic Shangwe people and others who were part of the group of people that were evicted from the forest.

When the issue was included in the questionnaire, only 13.4 per cent of the respondents felt insecure towards the FC. A cross-tabulation to measure the association between ethnicity and insecurity revealed that displaced and Shangwe people were more insecure towards the FC at 22.5 and 18.8 per cent, respectively. This was in comparison to 6.3 and 7 per cent for the Ndebele and Shona, respectively. The number of respondents who felt insecure was insignificant when compared to those who did not. It

is alleged that most of these movements of people were preceded by "friendly" researchers who investigated their settlement problems. At present, there is an inherent fear of relocation coming after friendly researchers have left the area. In the survey, a question on respondents' opinions about the research that I undertook was included in order to measure further the amount of insecurity. Surprisingly only 22 per cent felt the study would lead towards their eventual eviction by the FC. Some 55.1 per cent of the respondents supported the study and felt it explored and documented local people's problems with their forest neighbour, the other 22.8 per cent felt the study had been a "complete waste of people's time".

5.8 Institutional issues

In this section, problems and issues that were raised by *masabhuku*, as well as other local leadership are presented. Village leaders in the VIDCO are all of Shangwe ethnicity as their parents or grandparents were the original settlers of the area. Prior to 1987, the area was sparsely settled so the headmen of the Chomusonde area actively encouraged more people to settle there. When their relatives were evicted from Mafungautsi because of the war in mid-1986, the village heads had no choice but to accommodate them. At the time many villages, especially those closest to the forest, had sparse populations. As a consequence, village leaders had no problems in allocating displaced people some land for settlement. However, arable lands had already been allocated to people who had moved in earlier. The other compounding factor is the nature of the terrain. There are so many gullies, some of them are deeper than 30 metres, on

adjacent sides of the Mbumbusi river which makes these areas unsuitable for farming. The only areas suitable for cultivation are on top of Mafungautsi plateau at altitudes above 1,200 m where the terrain is flat.

When people were evicted from the Zanda area, village leaders in Chomusonde hoped that once the war was over, the FC would take them back into the forest. This explains why land is on top of their agenda whenever they have meetings with forestry officials. At first they welcomed these meetings when they were initiated in 1993, because they hoped to articulate their land needs. However, they are beginning to have doubts about the FC officials' genuineness in seeking good relations with them because of its unwillingness to present the land issue on the negotiation table. The leaders are beginning to have problems in mobilising their people for meetings organised by the FC as their interest is waning, given the FC's alleged lack of commitment to the land problem. The community leadership, especially that based on the modern system as contrasted to the traditional, appeared to be unhappy with the way FC officials continuously discuss the resource sharing scheme with every member of the community. They reported that they have problems with controlling some of the anger and frustration among some community members at such meetings. Most leaders concurred that it would have been more appropriate for the FC to have held meetings with them until they had resolved their differences and agreed on implementation plans that they would then take back to the rest of the villagers. They said that the strategy was used by most other development agencies when initiating programmes in the area.

Discussions were also held with the leaders, both traditional and modern, about

the existence and effectiveness of institutional arrangements for management of local natural resources. *Sabhukus* still control the use of natural resources in as much as they allocate land to in-migrants. They work in conjunction with the local chief who has court sessions every Thursday and Sunday. Their duty is to enforce and monitor resource use guidelines issued to them by the chief. There are a number of these that are in effect in the area. The one that was mentioned most frequently pertained to the use of Mbumbusi riverine resources. Because most of Chief Ndhladhlambi's people fetch water from the river for domestic purposes, bathing and washing laundry directly in the river are prohibited. In the few months the researcher was in the area, he witnessed people fetching water from the river and doing the laundry a few metres away from the flowing stream. Those found flouting this regulation are made to pay heavy fines by the chief. In most cases, it was people of Shona origin, mostly recent in-migrants, who were caught going against this regulation. Probably one of the reasons why people adhere to the regulation, besides lacking other sources of clean water, has to do with the chief's daily movements along the river in pursuit of beer gatherings. Because the chief needs a constant supply of money for his drinking habits, he has no hesitation in imposing fines for those found trespassing his rules.

There are many other regulations which are in place for management of resources. One of these pertains to the prohibited cutting of fruit trees as well as *Terminalia* species for timber. Other District Council natural resource-use by-laws have also been incorporated into the local sphere through this system. These include the prohibited indiscriminate cutting of trees for no specific end use. All these regulations are effected

by the chief through his *masabhuku*. It was also pointed out that, in general every villager has the responsibility of policing each other to "ensure their survival and that of their growing children." It is because of the effectiveness of their local arrangements that most of the leadership did not hesitate to point out that if they were to be asked to replace the protection unit, many of the "deplorable cutting practices" they witness in the forest would not be taking place at all.

Results from the survey indicate very low numbers of respondents witnessing people being fined for either bathing in the river or cutting prohibited trees. 21.3 and 18.9 per cent of the respondents replied yes to seeing people being fined for cutting fruit trees and bathing in the river, respectively. Fruit tree cutting was the variable in the questionnaire representing the cutting of any other prohibited trees in the area. Given the larger numbers of people who had not witnessed these arrests, there is a high likelihood that villagers in the area adhere to their local rules and regulations for resource management.

5.9 Summary

The results of the study indicate that the displacement of people from the forest has caused land shortage and social problems to a community living adjacent to the forest. The land problems in turn lead the communities to make land concession demands to the FC. Evidence from the study also indicates that the majority of people living closest to MFA use its resources for a diversity of reasons. Some of the uses of the forest's resources are not necessarily legal and adversely affect the forest, ecologically. Despite

the presence of the FPU to protect forest resources, local people continue to depend on a diverse range of products to meet their needs. At the same time, local institutions appear to manage and control resource use in their areas effectively. Even with the current mistrust of the FC and the prosecution they face for getting forest products illegally, the majority of local people are willing to participate in a co-management programme with the FC.

Chapter six

DISCUSSION OF STUDY RESULTS, CONCLUSIONS AND IMPLICATIONS FOR MANAGEMENT OF FOREST RESOURCES.

In this chapter, the results presented in the preceding chapter are discussed in the light of their implications for forest management by the Forestry Commission. These results also have wider ramifications for the general land reform issue in the rest of the country. The results are also discussed in relation to the historical background of forest lands, presented in chapter two, as well as in relation to experiences from elsewhere in the world, as presented in chapter three. Thus the chapter draws on arguments presented in the first chapters in order to come up with management options that are more suited to the FC's circumstances. Findings of the study are also discussed in relation to their contribution to the theoretical construct of state property regimes and more significantly to the growing body of literature on joint forest management.

6.1 Discussion of forest activities

Each of the activities related to community use and perceptions of forest resources is discussed in turn.

6.1.1 Historical land claims and the tenurial conflict

The current perceptions and needs of local people in relation to forest resources seem to be intricately influenced by the historical reality of those displaced from the forest. Whereas the FC was not responsible for the eviction of forest inhabitants, present

feelings and perceptions of neighbouring communities would compel it to take some action, particularly about the land problem. There is a high percentage of respondents who would prefer to settle and farm in the forest. There is also a high percentage of respondents with the opinion that displaced people should be retained by the FC to allow them to live in MFA. These opinions would be very difficult and costly to put into operation. While the FC used to co-exist peacefully with its neighbours and tenants before the incidents of 1985-86, it would appear that local people still respect the ownership of the forest by the FC, which is infrequently perceived as a *sapurazi*, that is estate owner.

There are several problems with the option of retaining the former forest inhabitants in MFA. The most obvious one relates to the complex nature of who to resettle in the forest. While only a small fraction of the original tenant families live just outside the forest in places like Chomusonde, the majority of these people are now scattered all over the district of Gokwe. Even if the FC retained former forest dwellers, the problems with its neighbours would not disappear. Land demands would continue to be made by those remaining outside the forest. These demands would be made by people such as the younger couples and recent immigrants to villages around the forest experiencing land shortages. To those people who were displaced, this option would be attractive because they would then have greater access to land for farming and could recreate their old sense of community, as well as have access to their religious sites. However, to the FC, the same few people that are retained in the forest would have growing demands on forest land. That is, as their population grows so will their arable

land needs expand. The demand would be difficult to cope with both as a management problem and as an ecological one.

At another level, the movement of forest tenants from the Rutope valley appears to have invariably caused or enhanced land problems for communities living around MFA. At the present time, the FC faces serious conflicts with communities living adjacent to its forest land because of different uses to which the two parties would like to put the forest. The FC would want, and is charged by the state, to carry out forest operations and maintain forest ecosystems like MFA for the benefit of the country as a whole. To local people, the MFA primarily represents land for farming for those not harvesting enough from their holdings and land for their future generations. Even those people with enough land to meet their needs and those with no historical associations with the forest would all like to gain access to land within the forest. The question then becomes, how does the FC deal with these land demands by its neighbours? The issue is arguably complex and requires a multi-faceted approach to deal with it.

On the basis of the findings from this study, it appears that the FC is faced with demands for land concessions by its neighbours. How to make these concessions while reconciling other FC's objectives in retaining guardianship of the forest becomes the issue. Which parts of the forest to give up to local people is also another issue to deal with. Given the fact there are several communities around many corners of the MFA making the same demands and facing similar land shortages, it becomes a difficult issue of which communities to concede land to. The more amenable solution would be to allow those people with a critical need for land to farm within the forest, while at the same time the

FC continues with either its conservation or harvesting plans.

While land needs surpass ethnicity and displacement factors, the inclination in making land concessions would be to favour those who were originally living off the forest and those of the Shangwe group who face land shortages. The intervening factor would be whether any of these people currently live close enough to the forest to be able to work on their fields on a daily basis.

An encouraging finding from the survey was that 62.2 per cent of the respondents were against the idea of the FC giving-up the whole forest to its neighbours. This view coupled with the willingness to work with the FC, an idea which 74 per cent supported, means that the FC can work cooperatively with communities towards arrangements addressing the land problem that are amenable to both parties. What needs to be worked out between the two parties is reconciliation of their conflicting needs. The FC would want to continue generating revenue from timber harvesting in the forest, maintain bio-diversity within the forest, as well as protect the important headwaters of the Sengwa, Mbumbusi and the Rutope rivers which flow to the Zambezi. These concerns have to be accommodative of the land hunger, since 42.2 per cent of respondents were experiencing land shortages. It is clear that if the FC were to give up the forest immediately, the MFA would be turned into arable fields in a few years by people in adjacent communities. The questions that need to be resolved pertain to whether this would affect the flow pattern of the Zambezi tributaries and whether a unique ecosystem would have been destroyed. A further issue relates to setting a precedent for land reform programmes for the rest of the country and creating expectations among rural communities in general. That is, all

people who were dispossessed of their original lands during the colonial era would put pressure on those managing such lands to return them. The future of forests like the MFA needs to be discussed also in relation to other activities beyond just land, as evidenced from the preceding chapter.

6.1.2 Grazing issues

The next forest activity that needs resolution between the FC and its neighbours is grazing. The results of observations and the questionnaire clearly indicate that only those people living closest to the forest graze their livestock in the forest. This issue confirms the same finding from the study by Matzke (1993). It would appear that people living further away from the forest are keen to graze there only because of the attraction of getting involved in a grazing scheme, which would save them labour involved in herding livestock. If indeed that is the case, then any planned grazing activity would need to eliminate those people that would want to participate for the sake of participation when normally they do not even use the forest for that purpose. Many of the other observations made by Matzke (1993) also apply to the findings of this study. That is, the lack of water in the forest would need to be addressed in any grazing scheme as would the insecurity of livestock grazing in the forest due to activities by cattle rustlers. Beyond that, there is always the problem that in the future the forest might become a more important source of grazing to broader group of people than those currently utilizing it. On the whole, grazing activities seem to be the least contentious to both parties at conflict and it appears that whatever is decided upon, it would benefit both the FC and neighbouring communities. Grazing reduces the incidence of fire outbreak in the forest and those with

livestock are adversely affected by such outbreaks due to the encroachment of noxious weeds. This activity benefits both sides with minimal costs involved.

6.1.3 Timber and non-timber forest products

The third most important use of the forest from the respondents' ranking scheme was timber for construction. This will be discussed in conjunction with the harvesting of other forest products. While timber harvesting was the third most important use of the forest, to the FC this is probably the activity that is severely sanctioned or prohibited. Even in the preliminary resource sharing negotiations, this activity was not considered by the FC (Mujakachi, 1994). Given the current use patterns by people living next to the forest (as evidenced by this study) and the prohibition by the FC, it means that timber is going to remain a great source of conflict between the two parties. Further, this study reveals that no amount of policing can deter users from getting resources they need from the forest. Criminalization of harvesting activities, instead of deterring users, leads to additional deliberate harmful activities, such as the cutting of log sizes that users would not normally use for construction and more frequent cutting than necessary. Timber harvesting tends to compete with current forest management in the areas of watershed protection and bio-diversity maintenance. However, these values represented by the FC need to be evaluated in the light of forest use by neighbours. To date the two conflicting uses seem to exist without any adverse effect on each other. Forest use by neighbours is influenced by proximity to the forest. This may imply that only those living in the near vicinity of the forest need be considered in management concessions for forest use.

Through the social histories of displaced people the study has been able to provide

evidence of use of forest resources since before the forest was managed by the FC. Besides, until 1985, local people and forest inhabitants had access to resources in the forest to which they are currently denied access. There were only five species that displaced people mentioned that the FC prohibited them from cutting. After independence and cessation of hostilities between the government and the dissidents, local people were expecting to gain even greater access to forest resources. Under the current resource sharing proposals, they are still denied access to even the most basic of all products. The contradiction is that no matter what the product is that the FC negatively sanctions people from harvesting in the forest, they still continue to get as much as they need, illegally. This means that the FC would not have control over these practices. There was an incredible diversity of products that local people collected from the forest in order to sustain their livelihood. They have done so for many generations and even those who are coming into the area at the moment seem to be equally dependent on forest resources if they live close to the forest. Chi-square statistics do not support the use of the forest being dominated by one ethnic group significantly. The key explanatory variable was distance from the forest for product collection.

Results of the survey indicate that 64.2 per cent of the respondents use forest resources for grazing or product collection. In drawing up any management plans the FC has to focus on those products that do not compete with or undermine the current uses of the forest. Things like mushrooms, fruits, as well as dry firewood collection would not compete with any forest activities by the FC. Also on the list would be grazing and broom and thatching grass collection. In fact, the last three activities would actually

benefit forest operations by reducing the possible damage from fire while neighbouring communities would be improving their welfare. Hunting would not adversely affect such a great number of people given that only 8 per cent of respondents and only a few hunters were encountered in in-depth interviews. This is one activity that can be prohibited or regulated without adversely affecting the livelihood of many people or enhancing the existing conflict between the two sides. Quite a number of people continue to depend on such products as *macimbi* and honey, given their relative medium ranking among the forest uses. This reality would warrant that the FC allow people to collect these products legally.

6.1.4 The potential of local institutions for joint management

One issue which was also explored in the study and which is central to future joint management of the forest between the FC and local people is the existence and functioning of local institutions. The traditional structures represented by the *sabhukus*, the headmen and the chief seemed to be very effective in regulating resource use in local areas. The local government structures did not seem to have much control on people's lives, other than when VIDCO level meetings and interfaces with the outside world were called. The latter seemed to work with the former structures in effecting their own agendas. The low incidence of witnessing people being prosecuted for going against local arrangements for resource use provided testimony to their effectiveness and potential for being used in place of institutions like the FPU. The potential for local structures to take over the duties of the FPU seems to be high, especially if combined with the high level of willingness, among respondents, of working with the FC in managing the forest. The

FPU itself admitted that its task was much broader than they could cope with to such an extent that it becomes almost pointless to have the unit. In any case, having a policing unit conflicts with the whole idea of sharing resources with neighbouring communities. Retaining the unit in a forest where such a scheme is envisaged leads to mistrust by local people. The unit could have potential in building similar functions within the community as will be discussed in the next section. The few people who encounter the FPU (only 16.5 per cent of the respondents) experience some of the most humiliating and frightening moments of their lives as they are searched for various products or their dogs are shot on site. If the unit were to be retained in the forest, they would need to undergo some serious re-orientation to be more humane in the way they deal with their neighbours. That is, a redefinition of both function and process.

6.2 Summary of the key issues raised by the study

Overall, the most important factors in forest resource use and perceptions are not necessarily displacement and ethnicity as was conceived at the onset of the study. Most important, nearness to the forest, historical resource dependency as well as underlying land shortages at present or in the future have a lot of influence on how people living adjacent to the forest use and perceive resources around MFA. The study has indicated that those who were displaced from the forest continue to depend on forest resources for their livelihood and their history also influences their need for intending to return to their original lands. However, their largest problem emanates from having inadequate land to meet their needs and this also affects the larger community in which they now live.

Nearly all of them, among those that found space next to the forest, continue to depend on forest products as they have always done for many generations, but now they face the risk of being prosecuted for this life pattern. The use of forest resources and the demands that are made to the FC are not significantly linked to any ethnic group. However, the Shangwe group of people appeared to be marginally more insecure towards the FC and this might affect negotiations with them.

6.3 Options/considerations for policy

Which management strategies to pursue in resolving the future of MFA depends on the objectives that management would want to pursue, in conjunction with the needs of local people, and these options are discussed in turn. Underlying each of these options are possibilities for each of the sides to the conflict to either gain or lose certain benefits that they were already enjoying. The ultimate aim is to pursue options under which both the FC and communities gain considerably.

6.3.1 Complete exclusion of communities

The first option or policy objective would be to maximize conservation of forest resources. Under this objective the FC would pursue exclusionary practices under which it would become the sole user of the forest. If this option were to be implemented, then the FC would need to increase their efforts in policing neighbours against having access to a range of resources from timber to soil for wall plastering. Pursuing stringent conservation ideals in MFA would lead to the loss of access to forest products by neighbouring communities and this would most probably increase the existing conflict.

Conflict with local people would probably result in increased illegal activities and possibly even in more environmentally damaging ones. The FC would incur losses through such activities through increased policing activities that would require more personnel and better equipment. Losses would also be incurred from the direct damage on the environment from poaching activities from people being kept out of the forest. There would be increases in the outbreak of fires either deliberately caused or from the fact that there would be no livestock grazing in the forest as well as people cutting thatching grass to lessen available tinder. This option would be costly to both the FC and local communities. This option or objective of complete exclusion for conservation should not seriously be considered, given the evidence from the study. Within the ladder of participation, as presented in chapter three, this option is characterised by the non-participation of local people. This is the other reason why it should not seriously be considered.

6.3.2 Resource sharing

A second option is whereby the FC could share resources from the forest with its neighbours on its terms. In terms of people's participation, this option corresponds to levels 4 or 5 on the ladder of participation presented in chapter three. In protected area management literature, this is the equivalent of creating buffer zones. In this case the buffer zones would not necessarily exist in space but through arrangements such as existed before the eviction of tenant families. This is currently proposed under the resource sharing programme (Mujakachi, 1994). Between 1970 and 1985, tenant families and possibly neighbouring communities were allowed access to certain resources in the

forest on the FC's terms as these were considered not to be at conflict with or competing against forest operations.

Proposed resource sharing schemes echo the same arrangements under which the FC still retains the prerogative to determine what to share with its neighbours without taking cognizance of their needs and existing practices. Thus grazing livestock in the forest and cutting grasses from the forest are considered in the proposals as these activities would benefit the FC without any possible competition with the FC's operations and objectives. Likewise, other minor activities like mushroom collection would also be permitted. However, the real sources of conflict that require negotiation to suit both parties are being sidelined. These activities include land for farming, cutting timber for various construction purposes and collection of honey and *macimbi*. The attraction of this option is that the FC would still pursue its own forest management objectives while at the same time allowing neighbouring communities to have access to a limited range of forest resources. However, in reality this option still retains the inherent conflict that currently exists with resource users. The activities that people would be denied would still be continued covertly and that would require increased policing activities by the FC. Eventually there would be open confrontation with local people as their needs would not have been addressed.

6.3.3 Joint management

The third option is managing the forest on joint parties' terms, that is for the benefit of both. This option corresponds to the partnership level in the ladder of participation presented in chapter three. This option represents the challenge that the FC,

like many other forest departments elsewhere, as argued in chapter three, needs to face in the light of the tremendous problems it currently experiences. The objective under this option would be to manage the forest jointly with neighbouring communities. Given the current complexities of on-going activities in the forest by both sides' attainment of this objective is necessarily going to be gradual and protracted with both sides having to make concessions along the way. While the process is undertaken, the activities that benefit both the FC and local communities would need to be put in operation first. Specifically, those activities like grazing under which both sides make gains at minimum costs in terms of competition with other forest operations offer a beginning point. Where negotiation is going to be most in demand are in community activities that compete with the forestry objectives. These activities would include demands for land for settlement and farming, as well as poles for construction. Some products like honey have potential for revenue generation for the benefit of both, provided there are adequate levels of investment into such an activity. Instead of criminalizing the activity, the FC could develop honey collection into some form of enterprise with honey collectors as an incentive for local people to perceive forest resources as beneficial to them. The FC could offer processing support or extension programmes for making hives. Likewise the revenue base from the forest could be increased by changing the focus on timber to include wildlife either through eco-tourism or through limited hunting.

6.3.4 Discussion of policy options

Whatever the options to be pursued, local communities have to be part of the beneficiaries of any revenue that is generated from the forest under each objective as

stakeholders in co-management. Management of the forest on both sides' terms offers an economically efficient alternative. It offers a broad based utilization of forest resources. On the other hand, this alternative also offers the possibility of increased welfare for neighbouring resource users by legitimizing their current practices. Both sides would make gains. At the basic level it offers an opportunity to increase the current values of the forest.

In order to achieve this objective there would be a process leading to it that has many facets. The costs that are incurred by the FC in policing activities of its neighbours would be apportioned to them through their existing institutional arrangements. There would be initial investment by the FC in capacity building at the local level to orient local institutions towards the new tasks. Prior to this capacity building there would be a need to resolve the existing conflict at the various levels. Conflict exists between communities and field agents like the FPU, extension agents working in the forest but are based at Gokwe, it also exists with head office negotiators. Different messages seem to be getting through to communities such that there is need to have one voice by all FC personnel having direct contact with these communities.

6.3.5 Conflict resolution suggestions

Having recognized these sources of conflict or contradictions, a process of negotiation would need to be set in motion to resolve them. Negotiation necessarily requires skills such that the FC might need to seek the input of other organizations to facilitate this dialogue. The Communal Area Management Programme for Indigenous Resources (CAMPFIRE) experiences might offer some insights on this issue. Silveira

House (an NGO with many years of experience in participatory development with marginalised people) could also provide a useful facilitatory role. Underlying this negotiation would be the need to trade-off certain powers to either these facilitators of to community groups. The other issue to be considered, is the need to recognize that the nature of the conflict or needs might vary with each community across the boundaries of the forest. This variation would require some sensitivity in the process of negotiation. Further to this two sided interface is a third party that would need to be involved in the process. That is, what would be the role of the district council? As the appropriate local authority over communal affairs they would want to be involved especially were revenue would be generated or earned by communities.

6.4 Implications of findings for further research

This was the first study of its kind in Zimbabwe, consequently there are a number of research areas that need further investigation. One such area for further study would be to develop comparisons and contrasts between the community in this study with other communities surrounding other forest areas. The aim would be investigate whether different conclusions can be drawn if a broader picture is sought on relations between such communities and the FC. Useful insights would be gained by studying relations around forest plantations and contrasting them to relations around indigenous forests like MFA.

The role of local authorities like the district councils was not investigated in this study, but in future they would not to be looked at in greater depth. Councils are the

appropriate authorities for the administration of communal affairs and their role in resolving such conflicts as existed around MFA, would be beneficial to investigate. Indirectly related to this issue would be the need to gain deeper understanding of the local level institutional capacity to manage protected areas jointly with institutions that managed them solely before, like the FC.

One last area that became apparent from the study relates to assessing the costs and benefits of each of the forest activities by both communities and the FC in financial or economic terms. This would be necessary in making decisions about those activities to invest in and develop for the benefit of both sides to the conflict. Related to this would be gaining in-depth insights about forest products like honey and fruits. The aim would be to quantify the contribution that such products make to household economies.

To gain further insights about the relationships between certain groups of resource users and their likelihood to use and perceive forest resources, further statistical analyses would need to be done. This would require the survey instrument to be constructed differently and include more continuous variables than was the case in this study. Such analyses would seek to establish correlations among variables as, level of dependency, certain perceptions, various independent parameters like ethnicity, displacement and distance from the forest. Further research might need to test specific theories or hypotheses, particularly those relating to resource dependence among communities living adjacent to protected areas, (cf Rural sociological society task force on persistent poverty, 1993). A broader literature review might lead to a further study being linked to specific theories on common property.

6.5 Concluding statements

The study has provided evidence of the existence of a tenurial conflict between the state, represented by the Forestry Commission, and local forest resource users. Although Mafungautsi Forest Area is a state property that is both national and private in legal terms, in reality the use of resources from it make it look like an open access resource regime. Local people living on the fringes of the forest continue to depend on resources from the forest despite the threat of prosecution.

The demands being made on forest land by its neighbours necessarily require the Forestry Commission, on behalf of the state, to change the property right system that exists around such forests. Forest neighbours should be allowed access and use-rights to forest resources if there is going to be sustainable management around Mafungautsi. There are examples that have been documented from the South-east Asian region which could form the basis of future plans of the FC.

Land and timber demands by local people pose the greatest source of conflict of interest and end-use to the FC. Such demands conflict with the needs of the nation which include watershed protection and maintaining the ecological functions of the forest. These demands have to be handled with long-term objectives that take them into account if the FC is to maintain its proprietary rights to the forest. That is the challenge that the FC has to face given the evidence provided from the study. The difficulty in meeting this challenge, however, lies in reconciling the needs of communities with those of the nation that are vested in the FC.

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APPENDIX ONE: THE SURVEY INSTRUMENT

SURVEY INSTRUMENT FOR LOCAL PEOPLE'S USE PATTERNS AND PERCEPTIONS OF RESOURCES AROUND MAFUNGAUTSI

F.M. Matose March 1994.

For official use only

Questionnaire Number..... ☐

Interviewer's name.....

Date of interview.....

A. Background data

1. Sex of respondent male (1)..... female (2)..... ☐

2. Age of respondent ☐
   less than 19 1
   20 to 29 2
   30 to 39 3
   40 to 49 4
   50 to 59 5
   above 60 6

3. Household type (interviewer to record) ☐
   widow (1), elder-son (2), oldparents (3), youngcouple (4), mature couple (5)

4. Household size

	children (<15)	Adults
males	☐	☐
females	☐	☐

5. Village : Manyepa (1), Chikuni (2), Zaranyika , ,, Tavayeni (4), Mateta (5), Matura (6), Matafu (7) ☐

6. Respondent's distance from Mafungautsi (interviewer to record) ☐
   Close (1), Across river (2), Close to main road (3)

B. Ethnicity/residency ☐

7. Were you born in this area? Yes (1) No (2) ☐

8. If not from this area, when did you move into this village? (decade)
   Before 1960 (0), 1960's (1), 1970's (2), 1980-85 (3), 1986-89 (4), 1990's (5)

9. Where did you originally come from? ☐
   Mafungautsi (1), Within Gokwe (2), Districts around (3), "Masvingo" (4)

10. If originally moved from Mafungautsi was relocation, voluntary (1) or forced (2)? ☐

C. Resources for farming

11. Do you have enough cattle for draught purposes? Yes (1), No (2) ☐

12. Do you have enough land for your family to subsist on? Yes (1), No (2) ☐
If yes leave 14.

13. In a good season, how much do you producequantity (bags)

maize	.....	☐
cotton	.....	☐
sunflower	.....	☐
groundnuts	.....	☐

14. The fields that you work on are:

Borrowed	Yes (1), No (2)	☐
Homefield only	Yes (1), No (2)	☐
Few acres	Yes (1), No (2)	☐
Old fields	Yes (1), No (2)	☐

15. The fields that you farm produce Very little (1), Enough (2), A Lot (3) ☐

16. The local terrain
Has too many gullies(Inhabitable) (1) Accessible enough (habitable) (2) ☐

D. Use patterns

17. Have you ever used any resources from Mafungautsi? Yes (1) No (2) ☐

18. In Mafungautsi do you Wet season (1) Dry season (2) All Year (3)

a) graze livestock?	.....	☐
b) cut timber for construction?	.....	☐
c) Looking for thatching grass?	.....	☐
d) collecting i) mushrooms?	.....	☐
ii) honey?	.....	☐
iii) macimbi?	.....	☐
iv) brooms?	.....	☐
v) fruits?	.....	☐
vi) firewood?	.....	☐
e) hunting game meat?	.....	☐

(If no use, go to question 21)

19. Did you ever encounter tree police while in the forest? Yes (1), No (2) ☐

20. The police

prosecuted you	Yes (1)	No (2)	☐
physically abused you	Yes (1)	No (2)	☐
chased you away	Yes (1)	No (2)	☐
Shot your dogs	Yes (1)	No (2)	☐
confiscated your products	Yes (1)	No (2)	☐
warned against collection	Yes (1)	No (2)	☐

21. The forest is important to my family for (inorder of importance, ask respondent to rank each of the uses using cards provided)

	Rank
providing acess to land	
grazing	
timber for construction	
thatching grass	
access to game meat	
brooms	
mushrooms	
macimbi	
honey	
fruits	
firewood	

22. The thatch you will use for repairing your houses comes from Mbumbusi river (1), Mafungautsi forest (2), Elsewhere (0) ☐

E. Perceptions of the forest and Forestry Commission

23. Mention of the Forestry Commission makes you feel insecure (circle response): Strongly Disagree (1), Disagree (2), No Opinion (0), Agree (3), Strongly Agree (4) ☐

24. Mention of the Forestry Commission makes you feel angry (circle response): Strongly Disagree (1), Disagree (2), No Opinion (0), Agree (3), Strongly Agree (4) ☐

25. Timber cutting concessions should not operate in the forest (circle response): Strongly Disagree (1), Disagree (2), No Opinion (0), Agree (3), Strongly Agree (4) ☐

26. The Forestry Commission should take back ex-Lutope residents (circle response): Strongly Disagree (1), Disagree (2), No Opinion (0), Agree (3), Strongly Agree (4) ☐

27. In your opinion, in managing MFA, the Forestry Commission should :

	Yes (1)	No (2)	
a) carry-on with current system	.....		☐
b) return to permit system	.....		☐
c) take back Lutope residents	.....		☐
d) allow neighbours' to participate	.....		☐
e) give up parts of the forest to neighbours	.....		☐
f) give up whole forest to neighbours	.....		☐
g) other opinion		(0)	☐
.....			

28. The Forestry Commission is proposing a resource sharing scheme, which one are you willing to take part in (tick response)

	Yes (1)	No (2)
a) grazing scheme	.....	
b) cutting timber for construction	.....	
c) mushroom collection	.....	
d) fruit collection	.....	
e) macimbi collection	.....	
f) honey collection	.....	
g) carpentry projects	.....	
h) other project (specify)		(0)
.....		

29. What would you have preferred to use Mafungautsi for? (tick response)

	Yes (1)	No (2)
a) settling there	.....	
b) farming there	.....	
c) grazing scheme	.....	
d) cutting timber for construction	.....	
e) mushroom collection	.....	
f) fruit collection	.....	
g) macimbi collection	.....	
h) honey collection	.....	
i) carpentry projects	.....	
j) other uses (specify)		
.....		(0)

F. Institutional issues

30. Did you ever witness anyone arrested for bathing in the river in the last year ?
Yes (1) No (2)

31. Has your sabhuku ever made anyone pay a fine for cutting a fruit tree like mugwadhi ?
Yes (1) No (2)

G. Other issues

32. In your opinion, research that we have been involved in (circle one response):
a) leads towards your eventual eviction from area by the Forestry Commission ..... (2)
b) aims at documenting and exploring issues around forest use ..... (1)
c) is a complete waste of people's time ..... (0)

33. Are there any issues you would like to point out? (state them clearly)

.....
.....
.....
.....